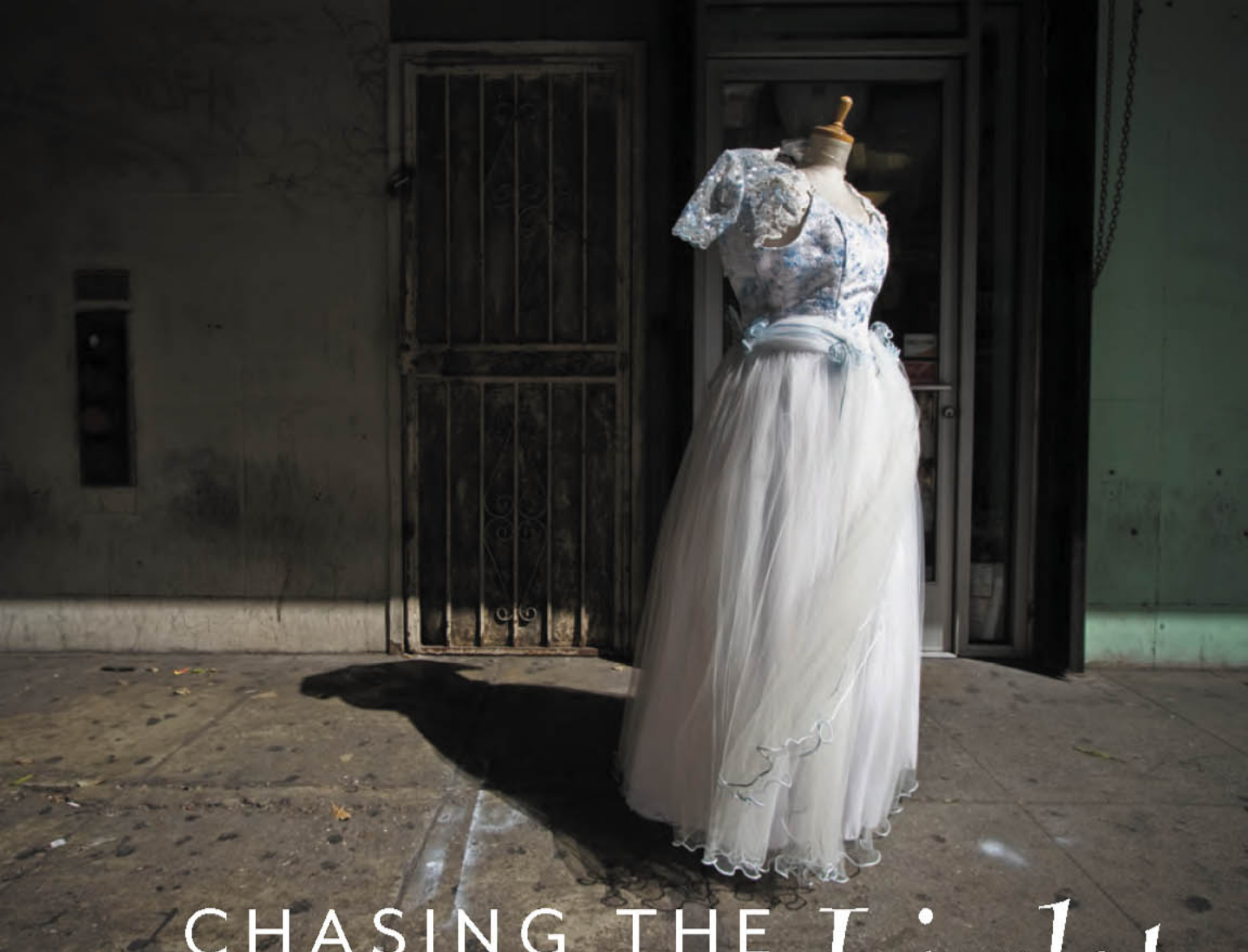

CHASING THE *Light*

Improving Your Photography with AVAILABLE LIGHT

IBARIONEX PERELLO

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New Riders
VOICES THAT MATTER™

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Dedication

For Cynthia, my biggest cheerleader

and

Mike Cohen, for the gift of learning to see.

Acknowledgments

Compiling a list of people to thank for all that they have contributed to the book that you hold in your hands is daunting. So many people have helped to inspire and encourage me that this list seems far too short. Thank you to:

My parents, who allowed me to handle their Kodak Reflex III and insist that they process the innumerable rolls of film that I put through it.

Mike Cohen and the Boys Club of Hollywood, which first introduced me to the magic of the camera and the darkroom.

Armida Bolton and Joe Dojcsak and the staff of the *Collegian* newspaper at Los Angeles City College, which revealed to me that there was something I was really good at.

My compadres at Alas Media—Marco Torres, Miguel Duran, Rosa Ruvacalba, Elizabeth Ruvacalba, and William Navarro—who are always great sources of inspiration.

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My family, who has, each in his or her own way, helped inspire the way I see the world.

The thousands of people I've met on my journey who have provided me the opportunity to turn my camera on them and record our momentary encounter during this all-too-brief time on Earth.

And God, for the eyes to see and the talent and the inspiration to make the most of it.

About the Author

Ibarionex R. Perello is a photographer, writer, and producer with over 25 years of experience in the photographic industry. His photographs and articles have appeared in numerous publications, including *Outdoor Photographer*, *PC Photo*, *Digital Photo Pro*, *Shutterbug*, and *Rangefinder*. He is an instructor of photography at BetterPhoto.com as well as an adjunct professor at the Art Center College of Design in Pasadena. Ibarionex is the co-founder of Alas Media, a multimedia production company. He is also the host and producer of *The Candid Frame: A Photography Podcast*, which features conversations with the world's best emerging and established photographers.

Ibarionex lives near Los Angeles with his wife and their dogs, Spenser and Tracy.

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Foreword

When I first started reading this book, I immediately felt engaged with a passionate photographer who really cares about his work, and with someone who really wants to share his long experience with other photographers.

I have known Ibarionex since he worked for Werner Publishing, where, at the time, I was Group Editorial Director of the photo magazines. Ibarionex always had a passion for light, for photographing people, and for photography in general that came across strongly in his work and especially his photography.

That shows up again in this book. I love the photos and the stories you can see within them. Ibarionex knows how to get involved with life and capture that with his cameras.

But the book is so much more. Ibarionex has poured himself into the text to bring his perspective to photography to everyone. He shows us his photos and gives some perspective on how they were shot. I love the way he incorporates real stories of how he approached photographing certain subjects. He doesn't just tell you to be careful of photographing white clothing, for example, but tells you of his experience in photographing a young girl in her first-communion dress.

Ibarionex's joy in photography comes through, too, in both the text and the photos. These are positive photos that make you feel good about the world we live in, and they help you get to know the people in the photos as if they were good neighbors. His how-to explanations are the same, a positive, helpful approach that you feel good about reading. And you will definitely learn a few things.

This is a book that can be enjoyed and learned from simply by paging through the photos and reading the captions. Then it can be further savored while you learn about photography as you read the text. You will enjoy reading it the first time, and you'll return to it as a reference again and again.

—Rob Sheppard
Author, Photographer; Editor-at-Large, Outdoor Photographer Magazine

Introduction

There is no shortage of books dedicated to the topic of photography. Despite photography's relative youth, countless words have been dedicated to this craft, which uses a little magic box to convert the intangible quality of light into something tangible, a photograph.

I've learned from and been inspired by many of these same books, and I have to admit some feelings of intimidation at the thought that I have something to contribute. Yet, despite these feelings, I have every confidence that what I share here will help to contribute to your passion for photography.

It's not because I believe that my way is the better or best way to approach photography. I don't dare make that claim. What I do know, however, is that I've been blessed with the gift of seeing, and that gift has been nurtured by the words I've read, the photographs I've seen, and the photographers I've met. That gift becomes valuable only when I make the choice to share it with others. Sometimes that sharing comes in the form of a photograph, but it also takes shape when I help inspire others to discover their own unique ways of seeing.

If you become a better photographer as a result of the words and images in these pages, that's a wonderful thing. However, the worth of this book becomes much more valuable if you discover a completely new way of seeing with and without a camera. That's my hope for you.

Enjoy the chase.

1

Beginning to See

Each time I venture out with my camera, I'm filled with a sense of hope.

I'm hoping that I'll discover a subject that will inspire me to make a photograph. But not just any photograph—one that will allow me to combine my camera skills with my unique way of seeing. Yet, despite how simple the physical act of raising a camera to my eye and pressing the button is, producing something that satisfies my creative appetite is often a challenge.

I'm aspiring to capture a photograph that expresses how I feel about what I see. I want to communicate to the viewers the wonder I feel when I discover something unique and beautiful. I want them, for just a moment, to share how I see the world.

As a fledgling photographer, I often fell short of that goal. And even as I invested in more equipment and became increasingly proficient with it, the ability to consistently make the "great" photograph seemed elusive. Yes, I was able to make such images on occasion, but those moments seemed more attributable to luck than to any inherent sense of talent or skill.

Though I loved photography, I have to admit that, many days, I returned home from shooting feeling frustrated with my inability to capture what I had felt and seen within the frame.

I was simply pointing my camera at people, places, and things and "documenting" them on film or digital. The image looked just like the object that had drawn my attention, but there was little else there—none of what I *felt* while making the image, especially not the excitement I had experienced. The photograph may have been an accurate representation of what I saw, but it wasn't an accurate representation of what I *felt*.

What made the difference? What was it that finally allowed me to produce the kind of images I aspired to readily and consistently create? The answer was a simple one: I started paying attention to what was happening with the light.

Awakening to the Light

The easiest way for me to explain the way of seeing that transformed how I work is with a photograph. This image of a mannequin standing alone on a downtown sidewalk exemplifies how being aware of the light led me to create one of my favorite photographs.

It was an early morning in downtown Los Angeles, on Broadway, a street that has become one of my favorite locations for photography. I was walking south on the west side of the street. I had chosen to walk there because the morning sun was illuminating patches of the west side of the street, while the east side was relegated to shadow. I knew I wanted to work with the warm, direct sunlight, even before I had discovered a subject to photograph. By paying attention to what was happening with the light, I was already creating an opportunity to take advantage of it once I discovered a subject.

I came to an intersection and was ready to cross when I looked to my right and saw the mannequin alone on the sidewalk. The sunlight, which was passing between tall buildings from the east, came down like a spotlight onto the figure, and I immediately knew that there was something special there. I quickly moved down the sidewalk, positioned myself just off the curb, and carefully composed my frame. I exposed frame after frame, carefully adjusting the composition and exposure.

People walked past, seeing the mannequin as nothing more than an obstruction in their path, but I saw something different: I saw how the direction of the light revealed the color and texture of the dress. I witnessed the contrast between the richness of the fabric and the dull, muted colors and textures of

Canon 20D | ISO 200 | f/8 @1/400th

Being in tune with what was happening with the morning light allowed my eyes to find this subject. Without that awareness, the mannequin would've been just another obstruction on the sidewalk.

the sidewalk and storefront. I felt excited as I exposed the images, knowing that I had discovered and was capturing something wonderful.

This image likely wouldn't have happened had I not been aware of the light. Like many of the people out that morning, I would've seen the mannequin as just another object on the street, an obstruction to get around rather than something to admire, much less make a photograph of.

Each time I give a presentation or lead a workshop and this image flashes on the screen, I hear the reaction of the audience. I know that most of those people wouldn't have reacted to the mannequin in that way if we'd been walking down the street together. They wouldn't have seen it in the way I did, because they wouldn't have been observing the light. But through my photograph, they're able to see the light, the mannequin, the street, and the world in the way I did at that exact moment. Within that single frame, I'm able to take their hands and say, "This is the way I see the world."

So, even before I raised the camera to my eye. I was seeing my photograph because I was aware of the light. I was introduced to my subject because I was awake to the qualities of the light and the potential it had to transform the world around me.

Asking Yourself Three Simple Questions

This approach to seeing is based on asking yourself three simple questions:

Where is the light coming from?

What is the quality of the light?

How much light do I have to work with?

The answers to these three questions are important because they open up your eyes not only to how the light impacts your subject, but also to what controls or features of your camera you need to adjust in order produce a successful image. But it has to *begin* with an awareness of the light.

In the following sections, I explain each of these three questions in greater detail.

Where is the light coming from?

Awareness of where the light is coming from—both its source and its direction—informs the settings you'll use on your camera to achieve the best exposure. It also leads you to choose where to position your subject and/or your camera in relation to that light. As you begin to see where the light is coming from, you train your eye to analyze how many different types of light there are and how light is transformed when it comes into contact with different objects (for example, when it's reflected off the surface of a large, white wall).

What is the quality of the light?

Once you know where the light is coming from, you can begin to analyze its physical qualities. If the light is coming from the bare midday sun, you see the harsh, deep shadows it produces on the opposite side of the subject and other elements in the frame. On an overcast day, that same sun is filtered through clouds, creating a more diffused quality of light, which softens the shadows and reduces the contrast between light and dark. If the light source is a candle, the light is not only soft, but very warm in color—markedly different from the light produced by the camera's built-in flash, which has a harsher quality.

How much light do I have to work with?

This question is crucial, because it determines your ability to pull off a well-exposed and sharp photograph. On a bright day, you have an abundance of light to work with, which means you have a wealth of options when it comes to the combinations of shutter speed, aperture, and ISO that you can use. In a low-light situation (at dusk, for example), those options are more limited, and you have to make compromises—for example, using a slower shutter speed and sacrificing sharpness and/or using a wider aperture and sacrificing depth of field.

TAKING PICTURES WITHOUT A CAMERA

The process of paying attention to light can begin even when you don't have a camera in your hands. Take a moment to look around you right now. Where is the light coming from? Where are the shadows falling? Are there areas that are very bright, while others are very dark? Are there multiple light sources around you?

Seeing and evaluating light is a skill that you can develop throughout the day, even when you're driving a car or riding on a train. Wherever there is light, you have the opportunity to hone the one skill that can and will transform your ability as a photographer.

Letting the Light Guide You

Here's an example of a common photographic subject, a flower. I saw this flower and was attracted to it as a potential subject. I could've composed my shot to emphasize the flower's shape and color, made a couple of images, and moved on. Although this might've resulted in a good image, that image might not have reflected the qualities that made me want to photograph the flower in the first place.

Instead, I slowed down for a moment and looked at what was happening with the light and how the flower looked different depending on my perspective. When the flower was lit from the front, the image had one look, but when I positioned the camera so that the flower was lit from the back, suddenly a completely different image appeared in my viewfinder. The color and texture that appealed to me were revealed. I moved in closer to emphasize those details that excited me, and the light allowed me to emphasize them. The result was a photograph that expresses my personal vision of the flower. This image is a direct result of my awareness of—and my use of—light.

Canon 20D | ISO 800 | f/3.5 at 1/5,000th

The vibrancy of color created by the light hitting the petals is what I was responding to when making this image of a flower.

These images and many of the other photographs in this book are as much about the light as they are about the subjects. The photo may contain a person, a landscape, a tire, a door, but my goal for all these images is that they're more than just copies of those elements on paper. If that were all they were, I would've failed to express what drives my passion for photography.

> **REMEMBER:** The first image you take is never the only one you can make. Take the time to slow down and really *see* the light interacting with the subject of your photograph. Let the light be your guide.

Canon 20D | ISO 800 | f/9 @ 1/320th

Though the first image was good, I wondered how different those same petals would look if I allowed the light to pass through them on the way to my lens. The result is a very different experience of the same flower.


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2

The Elements of Exposure

For the longest time, I was convinced it was the camera that could make me a better photographer. As my passion for photography grew, I immersed myself in countless photographic magazines and books. I drew inspiration from great photographers like William Albert Allard, Jay Maisel, Mary Ellen Mark, William Eggleston, and Gordon Parks, often scouring the caption information for insight into what camera gear these legendary photographers had used.

I had the mistaken belief that if I could only afford and own the same equipment that they possessed, I would improve as a photographer. So, when I was finally able to afford and purchase some of that gear, I was disappointed that there was little difference to be found in my photographs.

There was certainly the thrill of the pristine newness I held in my hands, but unfortunately, that momentary rush didn't translate into a different way of seeing and making photographs. The purchase provided a sense of new possibilities, but it wasn't automatically fulfilled merely because I had left hard-earned cash on the counter of my local camera store.

No, the fulfillment of that promise came only as a result of my stepping out with my camera and creating photographs over and over again. It was the practice of making images that didn't work—many of them—that eventually gave me the insight I needed to make better photographs more consistently.

But merely being prolific wasn't enough. I might have succeeded in making tens of thousands of images, but until I could use the camera to create an image that expressed how I felt, I was nothing more than a walking and talking copy machine. I had to begin evaluating the light.

The Challenge of Exposure

One of the things I expected each new purchase to provide me were solutions for problems that I continually faced in the field. One of those issues had always been exposure.

The goal was simple enough: Create an exposure that's not too light or too dark. Often, I just allowed the camera's automatic features to handle things for me, but sometimes the automatic features were off the mark. Even if I controlled exposure manually and referred to the meter in my viewfinder, sometimes the exposure was less than stellar.

The problem wasn't so much with the camera technology as it was with the fact that I simply didn't know how to meter a scene. I had no idea how or why the things in front of my lens could impact the meter reading and, consequently, my image. I just hoped that if I looked through the viewfinder and positioned

Canon 40D | ISO 400 | f/5.6 @ 1/310th

This street scene of a man holding a bible offers a wide range of tones and colors, which makes it easy for the camera's evaluative meter to provide an accurate exposure.


Santa
Biblia

the needle in the right place or got the LED to turn from red to green, I'd be fine. Well, sometimes I was and sometimes I wasn't.

The reason for this was a simple one and the fault didn't lie with the camera: I was *using* the light, but I wasn't *seeing* it. And if I wasn't seeing the light and how it was interacting with and impacting the scene, there was little hope that the camera would be able to figure it out for me.

I was looking at the objects I wanted to photograph, but I wasn't considering the quality or the direction of the light. I wasn't seeing the contrast between the highlights and the shadows. And more important, I was not recognizing when certain objects reflected more or less light than other objects.

I was completely blind to the very things that could and would help me to make better choices—choices not only about how I would photograph a scene, but about how I would meter it.

The challenge was taking what I was seeing with my naked eye and understanding how the camera was interpreting it.

The Fundamentals of Exposure

Every camera uses three elements to control exposure: shutter speed, aperture, and ISO. Yes, your camera may have a wealth of other bells and whistles, but shutter speed, aperture, and ISO are at the heart of everything you do with your camera. They impact every photograph you make.

Shutter speed

Your camera has a shutter that blocks the light path from the film (if you're shooting with a film camera) or the sensor (if you're shooting with a digital camera). Every time you push the button to take a picture, you're releasing the shutter. The shutter moves out of the way, allowing the light to make the photograph.

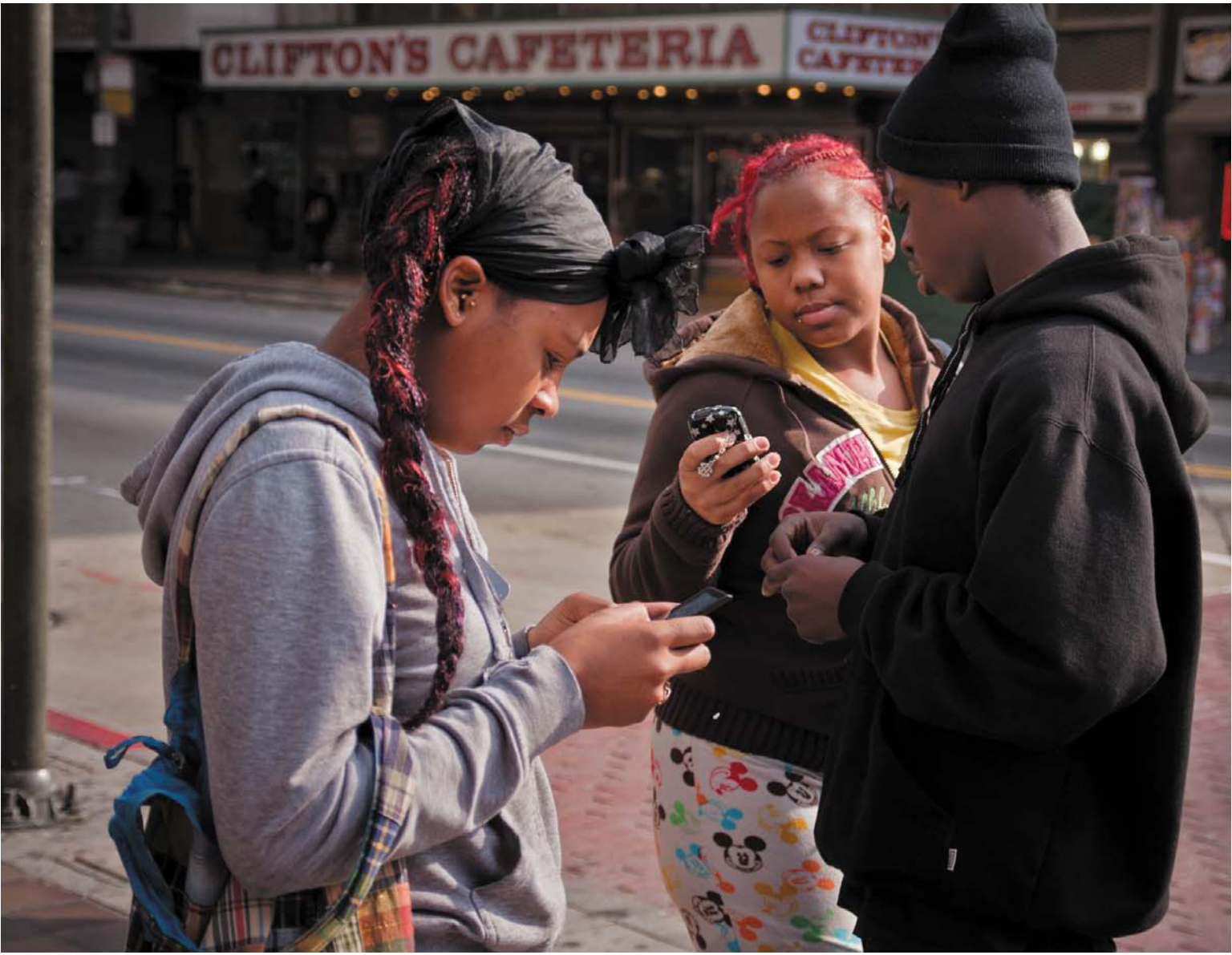
Shutter speed is measured, for the most part, in fractions of a second. Most cameras offer a range of 1/8,000 second to 30 seconds. Your camera also may have a bulb mode, in which the shutter remains open as long as you hold down the shutter release button.

Traditionally, shutter speeds have been adjusted in full-stop increments: 1/1,000, 1/500, 1/250, 1/125, 1/60, 1/30, 1/15, 1/8, 1/4, and 1/2 second. So, when you increase the shutter speed from 1/60 to 1/125 second, you're letting half as much light reach the film or sensor. When you decrease the shutter speed from 1/60 to 1/30 second, you're letting twice as much light reach the film or sensor.

Today's generation of cameras allow you to choose intermediate shutter speeds such as 1/45 or 1/90 second, which provide you the means to refine your exposure in increments as small as one-third or one-half stops.

Canon 40D | ISO 200 | f/4 @ 1/500

Staying aware of my shutter speed helps ensure I get a sharp photograph when I quickly raise my camera to capture a street scene like this.



Olympus E-3 | ISO 250 | f/3.5 @ 1/800th

The choice of aperture not only allows enough light for a good exposure but also provides me the capability to control depth of field, which results in the girl's face appearing sharp, but the rest of the scene appearing slightly out of focus.

Shutter speed doesn't just affect exposure. It also affects the way in which you capture motion. When you use a faster shutter speed, you freeze the action. When you use slower shutter speed, you see the blur of moving objects. Whether you want the motion to be frozen or blurred is a creative choice that can have an impact on what shutter speed you use, but for now, I'll limit the discussion to how shutter speed contributes to exposure.

Aperture

The aperture, or f-stop, of a lens also controls the amount of light used for an image. But instead of adjusting how long the light is let in, aperture controls the size of the lens's opening. Most lenses have a range of apertures from f/22 to f/1.2. Not every lens extends for this full range—your lens may not have options at the higher and lower ends of the spectrum, but it still has a range of some sort. The smaller numbers (for example, f/1.8 and f/2) represent a very large aperture that allows more light to pass through the lens, while the larger numbers (for example, f/16 and f/22) represent a smaller opening that restricts the amount of light passing through.

As with shutter speed, a full-stop change in aperture doubles or halves the amount of light. The full aperture stops are: f/2, f/2.8, f/4, f/5.6, f/8, f/11, f/16, and f/22. So, changing the aperture from f/8 to f/11 halves the amount of light, while changing the aperture from f/8 to f/5.6 doubles it.

You also can adjust aperture in one-third or one-half stops. Apertures such as f/7.1 or f/3.2 provide you the ability make more precise changes to exposure.

As with shutter speed, the choice of aperture influences the look of your image beyond the exposure. The aperture impacts *depth of field* (how sharp elements in front or behind your point of focus appear in the image).

Olympus E-3 | ISO 1000 | f2/8 @ 1/200th

When light levels are low, you may need to increase the ISO in order to provide a shutter speed/aperture combination that produces an accurate exposure and a sharp photograph.

ISO

If you've ever shot film, you know that you choose films based on ISO. Film ratings included common designations such as ISO 64, 100, 200, 400, 800, or 1600. You choose a speed of film based on how much light you expect to work with. If you plan to shoot under bright, sunny conditions, ISO 100 or 200 would be sufficient. But if you think you might shoot under low light, you might choose film with a much higher ISO, such as 400 or even 1600. Higher-ISO films are more sensitive to light and give you the ability to capture well-exposed images even when the light is less abundant.

SHUTTER SPEED/APERTURE COMBINATIONS

Shutter speed and aperture aren't used in isolation—they work together to make the picture you want. To see how the combination of aperture and shutter speed work, put your camera in aperture priority mode and set your ISO to 100. Using a tripod or a stable platform, point your camera at a very bright scene and select the smallest full-stop aperture you have available on your lens (for example, f/22 or f/16). Note the shutter speed that the camera has selected. Assuming you're outside on a sunny day, the shutter speed will likely be at or around 1/125 second.

Next, change the aperture in full-stop increments (f/16, f/11, f/8, f/5.6, and so on), and make a note of the shutter speed selected by the camera at each of these stops. You'll see that as the aperture opens up allowing more light in, the shutter speed increases in full-stop increments, thus shortening the duration the shutter remains open. So, if you open the aperture one stop, the camera automatically compensates by decreasing the shutter speed one stop, ensuring the same quantity of light needed for an accurate exposure.

All those different combinations of shutter speed and aperture you just saw would all deliver exactly the same amount of light to the sensor.

The numbers for shutter speed and aperture can be confusing, but an easy way to visualize how they work is by considering a faucet and an empty water glass.

Imagine that filling the glass is the equivalent of achieving a good exposure. However, in this case, instead of using light, we use water delivered by the faucet. We want to produce just the right amount of water to fill the glass and we have two ways of doing that: We can fully open the faucet (the equivalent of a wide aperture, such as f/2.8 or f/2), which allows a large rush of water to quickly fill the glass. Or we can close down the opening (for example, f/16 or f/22) so that the water comes out in smaller quantities, requiring that the faucet be opened for a longer period of time. Regardless of what combination is used, they both end up delivering the correct amount of water to the glass.

One big drawback of shooting with film is that if the light changes, or you change location (for example, you move inside), you might have to rewind the film mid-roll in order to put a more appropriately rated ISO film in the camera to better handle the new lighting conditions.

If you're shooting digital, you don't have that problem. Instead, you can change the ISO as needed, without having to worry about wasting film.

The ISO setting is the first exposure choice I make even before my choice of aperture or shutter speed. I immediately assess the light that I'm working with and assign an ISO that I know from experience provides me with an effective range of shutter speed and aperture to work with, particularly under challenging lighting.

Lower light conditions will call for higher ISOs such as 400, 800, 1600, and sometimes even higher. Though you can reduce the need to use such a high ISO if you have fast lenses with maximum apertures of f/2.8 or faster, the need to use high ISOs may be unavoidable if the light levels are just too low. Thankfully, the recent generation of sensors and cameras' onboard processing has increased our ability to shoot at these ISOs and achieve quality thought impossible just a few years ago.

ISO AND NOISE

Some photographers resist increasing ISO because they're concerned about noise, which can appear as multicolored speckles in areas of shadow or broad expanses of uniform color such as a blue sky. Noise usually becomes more pronounced at higher ISOs or when images are underexposed.

I would prefer an image that's sharp with noise, rather than a noiseless image that's soft, because the former I can do something about.

If I am concerned with noise—such as when I'm using an ISO of 800 or higher—I can enable different degrees of in-camera noise reduction or handle it later in software (such as Adobe® Lightroom®, Adobe Photoshop®, or Apple® Aperture™). Many third-party plug-ins and applications also effectively reduce the presence of noise.

Aggressive noise reduction does come at a price however, which is the loss of fine detail. So, whether you handle noise in the camera or with software, be aware of the trade-offs that you may need to make between detail and noise.

If I want to maintain low ISOs while shooting, I'll use a tripod, flash, or strobe to increase the level of illumination. This results in a very different way of shooting than how I'm often working on the street (and a different method from what I cover in this book), but I won't hesitate if I know that the look I desire can't be achieved otherwise.

This works for me because I'm paying attention to the quality of light even before I make a photograph. My awareness of the quality of light helps me prepare my camera for the opportunity when it presents itself. I set my ISO as my starting point, and then when I'm ready to make a photograph, I quickly check my shutter speed. If the shutter speed is too slow for the focal length I'm shooting with (see Chapter 3), I either change my aperture or change my ISO. Then I can shoot confidently, knowing that if I'm handling the camera properly, I'll produce consistently sharp photographs.

Awareness of the light and its influence on your ISO and exposure settings serves as the foundation for every image made. Though many of today's cameras feature auto ISO, which dynamically adjusts the ISO for changing light levels, I defer to changing my ISO manually. Why? Because setting the control manually demands that I pay attention to what's happening with the light.

By paying attention to the light, I create an important link between the light itself and the settings on the camera. No longer are they settings that I have to change because of some hard-and-fast rule I read in a book or heard in a class. Instead, the controls are connected with how I see and how I want to translate that vision into my final photograph.

The Mechanics of Metering

Your camera works on the principle of a reflective meter, which means it measures the light reflected off the subject and scene. Unlike a handheld or incident meter, which meters the light directly falling onto the metering cell, the meter in a DSLR is based entirely on the light being reflected by varying degrees off the different elements within the scene.

Every camera meter is calibrated for an average reflectance. Traditionally, it has been said that each camera meter is calibrated for an average reflectance

of 18 percent gray, which is the halfway point between black and white. However, to be more precise, camera meters are actually calibrated for a standard reflectance of 12 percent. Now, that may be a key concern for techies, but that 6 percent difference doesn't provide a practical impact for me.

What's important to understand is that this standard average reflectance will impact everything that the camera meters. Because of this, your camera's meter will try to interpret everything as if it were medium gray. Now, that's not a problem if you're taking a photograph of a man in a gray suit, wearing a gray hat, standing against a gray wall. The camera will give you an exposure where that gray suit appears gray.

However, if you're taking a picture of a person in a white suit against a white wall or a black suit against a black wall, the camera will recommend an exposure that makes those elements appear gray, rather than their respective white or black. In the real world, we aren't photographing just tones of gray. Instead, we photograph scenes that offer a range of colors and tones.

Extreme examples may not be common, but it's still important to note that the significant presence of dark or light tones within an image can skew the exposure. And if you can keep an eye out for those things, you'll understand why the exposure being displayed in your camera or computer is less than accurate.

This young girl in her first communion dress provides an example of when a prominent white element can result in an exposure that doesn't deliver what I want in an image. The meter sees a prominent white area and, despite the presence of the red chair or her skin tone, the camera's metering of the scene would result in an underexposed image, rendering the white as gray. So, unless I recognize that and make an exposure correction, I won't achieve a good exposure.

Canon 20D | ISO 200 | f/4 @ 1/45th

A white dress that dominates the frame can result in a meter reading that leads to an underexposure of the subject. Knowing that the dress will skew the exposure allows you to make the necessary adjustment to get a better exposure.

Olympus E-3 | ISO 100 | f/11 @ 1/250th

Taking a meter reading off the bright wall and increasing my exposure by an additional two f-stops ensure that the white wall remains white and that I retain good shadow detail in the rest of the frame.

Nikon D70 | ISO 200 | f/4 @ 1/60th

Adjusting the exposure from the meter's recommendation ensured that I not only rendered the blacks as black, but also didn't risk overexposure of critical areas such as the white collar.

Being aware of the meter's tendency to render extreme tones as medium gray prepares me for scenes such as this wall and roof. I knew that I wanted this white wall to be rendered as its true white. But if I allowed the camera's meter to have its way, it likely would have underexposed the scene and made that white appear gray. So, unless I adjusted the exposure, the image would have been underexposed. Not only would the bright white appear gray, but those areas in shade would have been underexposed.

Dark tones also can result in a problem of exposure if you aren't aware of them when taking a meter reading. Though I loved the way the dark tones of his hat and clothing framed this mariachi's face, I had to be concerned that the camera's meter would see that black and render it as gray. This would have increased the exposure and could have possibly resulted in an overexposure in which I would have lost all detail in the collar of his shirt. Recognizing the situation made it easy for me to adjust my exposure to ensure that I didn't risk that overexposure and retained detail in my highlights.

Understanding how the camera interprets what's in front of it is essential to achieving the best exposure possible. If you can recognize those elements in a scene that may lead your camera to produce an inaccurate result, you can change your aperture, shutter speed, and ISO accordingly.

Metering and auto exposure

Most cameras have the following exposure modes:

Program mode: The camera selects the shutter speed and the aperture.

Aperture priority mode: You select the f-stop, and the camera selects the shutter speed.

Shutter priority mode: You select the shutter speed, and the camera selects the aperture.

Manual mode: You select the shutter speed and the aperture, referring to the meter in your viewfinder to determine how you want to set both of those controls.

Whichever exposure mode you're using, remember to pay attention to the brightest and darkest areas of your scene, because they'll tell you whether you need to go with what the meter is recommending or make some adjustment.

Olympus E-3 | ISO 100 | f/4 @ 1/640th

The dominance of the shadow side of the cactus and the dark foreground in the distance lets me know that the camera's meter may suggest an exposure that would allow in too much light, resulting in a loss of detail and saturation in the beautiful morning sky.

METERING MODES

Every camera provides three or more metering modes, which evaluate the light passing through the lens to the meter. Each of these modes evaluates the light in a very different way. Though the evaluative or matrix metering mode will satisfy most of your needs, it's important to have an understanding of what the other metering modes will provide you.

Evaluative or matrix metering: Evaluative metering assesses a scene using multiple sensors or segments. Instead of just averaging all these areas, it takes the data from each segment and, using sophisticated algorithms, compares the info with a database of lighting conditions. Then it attempts to identify the lighting situation you're shooting under to deliver the best meter reading.

Multi-pattern metering will handle the great majority of shooting situations you'll encounter. Even with images with a wide range of tones and colors, this metering system will easily deliver an excellent exposure.

Center-weighted metering: As the name implies, center-weighted metering emphasizes the center area of the frame. A good reference point for this is the circle that you'll see in the center of your viewfinder. This 12mm area denotes the area emphasized for exposure. The metered area is actually shaped like a bell curve, rising from the lower-left-hand corner and lower-right-hand corner and peaking at the top of the reference circle.

Many cameras feature a 60/40 center-weighted metering system, meaning that 60 percent of the metering is weighted for that center/bottom area. This meter is designed in this way because the assumption was that the more important parts of an image were composed around the center and bottom half of the frame. More often than not, this is true, and center-weighted metering can and does produce good exposures.

Partial metering: Partial metering, often found in Canon cameras, emphasizes the center area of the frame but does not factor in everything you're seeing in your viewfinder. Instead, it covers about 8 percent of the viewfinder area at the center. By factoring out the area outside this area, it disregards elements of the scene that could throw off the accuracy of the meter reading, such as a large expanse of whiteness or light streaming throw a window behind a subject.

Spot metering: Spot metering is very similar to partial metering except that it measures an even smaller area, about 3.5 percent or less. A spot meter can either be found at the very center of the frame or one of the camera's autofocus sensors. This restricted metering allows you to choose specifically which parts of a scene you want to base your metering on.

When a dark or bright image is dominating the frame, this metering system provides the means to maintain a good exposure. In an image with a subject wearing a white dress, you might risk underexposure with either multi-pattern or center-weighted metering, but by metering the subject's skin tone you can achieve a more accurate overall exposure.

Keeping metering simple

Though my cameras may feature multi-pattern, center-weighted, partial, and spot metering modes, I find myself using the multi-pattern metering mode about 90 percent of the time. So, the trick becomes recognizing the 10 percent of the time when the alternative metering modes are best. I'll get into more detail about this in the next chapter, but I want to point out that it's less about the choice of metering and more about correctly evaluating the light and scene you're working with.

At a very basic level, you want to be able to discern when scenes will pose a metering problem. Scenes that are of a high contrast or that contain large amounts of very dark or light tones often are an issue.

You often face extreme contrasts between light and dark in landscape scenes. Though your eyes easily adjust to the contrast range, the sensor of the camera is limited in comparison. Knowing this allows you to make a much better decision of how to meter the scene and determine your exposure to retain important details in your highlights, midtones, and shadows.

My ability to see and recognize such qualities in a scene lead me to make different choices of metering or exposure. If I know what to pay attention to, it makes taking advantage of the mechanics of my camera that much easier.

Olympus E-3 | ISO 200 | f/11 @ 1/160th

By intentionally exposing for the highlights, I allowed the shadows to go completely black, heightening the contrast and the impact of this portrait of a dog on Hollywood Boulevard.

Interpreting the Light

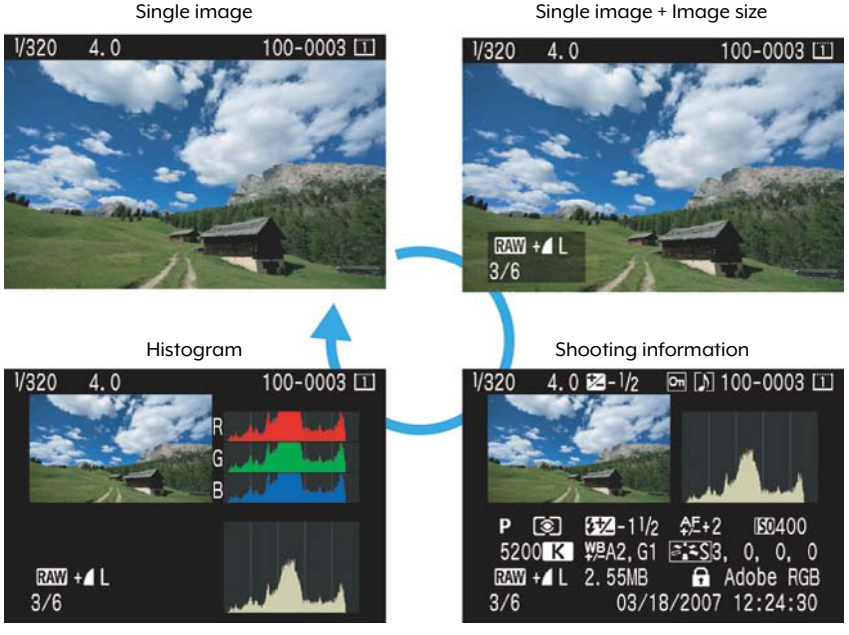
I've spent a good amount of time talking about getting a good exposure, but I don't believe that there is only one way to expose a scene. Typically, I want an exposure that provides me a full range of detail from the shadows to the highlights. The meter and the histogram can go a long way toward helping me to achieve that goal.

THE HISTOGRAM: YOUR BEST FRIEND

Suspecting that your camera is not providing you the best exposure and *knowing* it are two different things. That's why using your camera's histogram is an invaluable tool for ensuring the best exposure possible.

The histogram on a DSLR can be made to appear as an overlay of your image during playback. It's a graphic representation of the tones that make up your image, from the darkest tones on the far left to the brightest tones on the far right. All the other tones are represented between those two extremes, appearing as a series of peaks and valleys on the graph.

There isn't an ideal shape to the histogram. Its shape is largely determined by the amount of specific tones within the image. If the image consists of a single gray tone, the histogram will have a large hump in the middle. If the image consists of just black-and-white tones, you'll see two large rises on the far left and right, but nothing in the middle.



Courtesy of Canon USA

The histogram provides me an important source of information for determining the accuracy of exposure. With it, I can not only ensure that I have the best exposure possible, but also that I'm not losing important highlight or shadow detail.

What's really important when evaluating a histogram is that the histogram not be heavily weighted to the left or right. If the histogram is weighted heavily to the right, you're likely risking overexposure of your image, which means blown-out highlights with no detail.

Whenever I begin shooting a new subject or scene, I take an initial shot and review the histogram. If the exposure is not what I need, I make an adjustment either manually or using exposure compensation (see "Exposure compensation," later in this chapter).

It's important to note that the histogram is based on the JPEG file rather than the raw data. So, if you're shooting raw, you can expect that your file will have a greater degree of latitude, particularly in the highlights. Even though the histogram doesn't represent the raw file, I still find it an indispensable tool for determining the accuracy of my exposures.

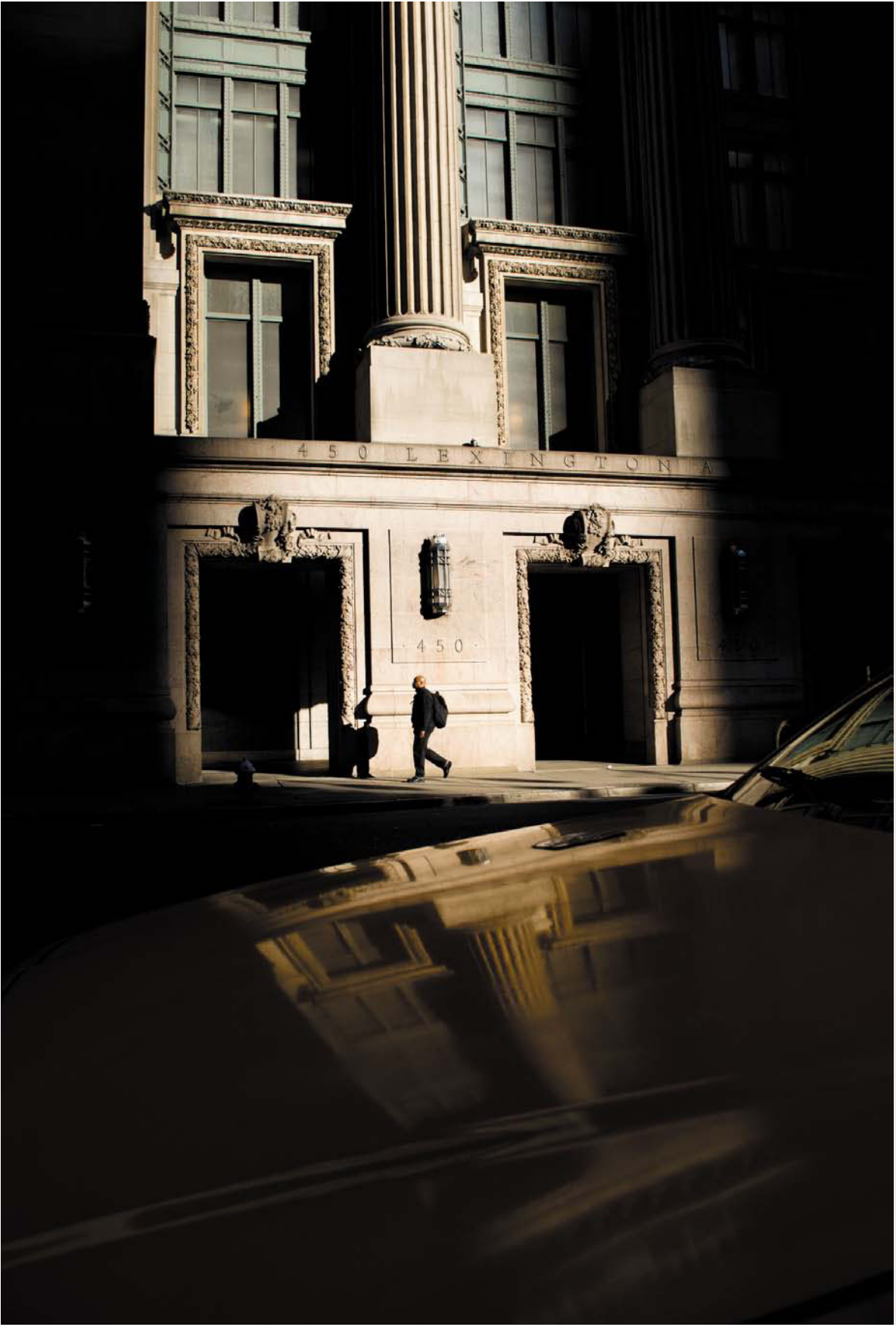
However, sometimes I want to achieve a specific look in my images, one that doesn't call for a full range of tonal detail. This is when I use one of the alternative metering modes such as center-weighted or spot (see the "Metering modes" sidebar, earlier in this chapter), and I meter with a particular purpose in mind.

Though many photographers use those other metering modes to handle complicated lighting situations, I more often use them to bias the exposure for the highlights and to intentionally underexpose the shadows. This creates a very high-contrast look to the image, where the color becomes especially vibrant.

This approach is inspired by many years of shooting with slide film, particularly Kodachrome, which had a very limited dynamic range as compared to digital and resulted in colors that popped in a very unique and beautiful way.

When I shoot this way, I'm often photographing in a high-contrast scene with pronounced shadows. To enhance the presence of those shadows, I expose for the highlight, allowing those darker tones to go black. The multi-pattern meter would attempt to bring out the details of those shadows, so I use center-weighted or spot metering to bias the exposure for the highlight, lose the shadow detail, and increase the contrast.

Many people say that I could achieve this same effect in Photoshop by making a Levels adjustment. That may be true, but I prefer the satisfaction of making it happen in camera. I'd rather spend time shooting instead of fiddling around in Photoshop.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The choice to meter and expose a scene in either way really resolves how I want to interpret what I'm seeing. If it's the full range of color and tones that I'm responding to, I'll use the multi-pattern meter and the histogram to ensure that I get the best overall exposure I possibly can. If I'm responding to the contrast between light and dark, I'll bias the exposure using center-weighted and spot, use the histogram to ensure that I don't overexpose my highlights, and let my shadows go to complete black. Whichever approach I choose, the journey between what my eye sees and what the camera creates begins with my choosing how I want to reveal what I've seen to the viewer.

It's at moments like this that the camera really becomes an extension of me, not merely a point-and-shoot. I have a clear opinion about what I'm seeing and I control the camera to give me the means to communicate that point of view in a finished photograph.

Nikon D60 | ISO 200 | f/5.6 @ 1/640th

It was the shaft of light hitting this street scene that attracted me. I emphasized it by biasing the exposure for the bright area of the scene, allowing the shadows to go deep black.

EXPOSURE COMPENSATION

I shoot primarily in manual exposure mode, so adjusting my exposure is simply a matter of changing either my shutter speed or aperture or a combination of the two. However, if I'm using an automatic exposure mode (program, aperture priority, or shutter priority), I use the exposure compensation feature of my camera to refine the exposure.

You may see a button marked with a +/– icon on your camera; this is typically the exposure compensation control (check your camera's user manual if you're not sure). When this button is depressed and the command dial is turned, the exposure can be biased to either increase or decrease the exposure in increments as small as one-third of a stop to a maximum of two stops.

So, if I'm pointing my camera at a white wall, I know that the meter reading will result in the camera underexposing so that the white wall appears gray, an underexposure of up to two stops. If I look at the histogram, I'll see that the graph will be weighted toward the left with little to no data appearing on the far right quarter of the histogram.

To correct this in an automatic exposure mode, I would use the exposure compensation control to shift the exposure by +1 to +2 stops. After taking the next image, I would review the histogram of the new image; as long as I see that I'm not overexposing, I can continue photographing the scene with confidence.

Any choice that I eventually make in respect to metering and exposure begins with my seeing and evaluating the light's impact on my scene. With that information, I can make more educated choices not only about how I meter or expose a scene, but also about how I'll make that scene appear in my final photograph.

MASTERING THE CAMERA

Put a pawnshop guitar in my hands, and I'll drive you and the cat away. Put that same guitar in the hands of Eric Clapton, and you'll be enraptured. It's obviously not the guitar that makes the difference—it's the practiced skill of the person holding the instrument.

What Eric Clapton has with a guitar is the same thing that Richard Avedon had with a camera, a familiarity and confidence with the instrument as a tool to express his voice, his vision. In the hands of these masters, the quality of the instrument may influence the nuances of their "performance," but it's ultimately their knowledge and understanding of the tool that allows them to make extraordinary art.

Though I don't consider myself in league with those greats, I do have an understanding that my process is inexorably tied with the camera that I hold in my hands, whether that camera is an Olympus, a Canon, a Hasselblad, or a Nikon. The camera is the device I use to create, but it's never the measure by which I can judge or value the work I make with it.

What's really important is that you have not only a natural comfort with whatever camera you hold in your hands, but also an almost instinctual understanding of what features and controls you have to change and adjust to translate what you see into a photograph. Your camera may have dozens of high-end features, but it's usually only a core set of those features that influence the majority of the work that you produce. And the only way you develop this mastery of your equipment is to use it over and over.

Olympus E-3 | ISO 800 | f/2.2 @ 1/30th

My awareness of the light in this bar in Guadalajara and a good tabletop tripod allowed me to create of series of images that capture the rapport that existed between this couple.

3

The Camera, the Exposure, and You

I have to know what I want each time I make a photograph. If I want nothing more than a document of what's in front of me, the camera often works flawlessly and produces an in-focus, well-exposed photograph. I simply point and shoot and I get an image that captures the object(s) in front of my lens. Of course, taking a photograph isn't that simple.

My camera doesn't prioritize anything. It's a pretty dumb machine despite its sophisticated on-board computer and advanced electronics. The camera was designed and built to take good-looking images, but it has no idea what I consider the most important elements in that scene. And if I'm not thinking about what's most important to me, the camera isn't going to get any smarter and figure it out for me.

To understand what shutter speed or aperture is best, I need to know how I want to interpret a scene, because that's what I'm doing each time I raise the camera to my eye. I don't just want to make a copy of the various objects in front of my lens—I want to express my personal experience of seeing in that single photograph. When I have that idea in mind, the choice of camera settings becomes both logical and consistent.

Seeing as the Camera

What's been important to my development as a photographer and to many of the students that I've taught is understanding that we need to make the camera a seamless extension of our eyes. The more I was preoccupied or frustrated by the camera itself, the less I was able to see through it and capture the photograph that I was inspired to make. The better I understood my camera, its features, and its settings, the better able I was to express myself as an artist with a camera.

The mechanics of anticipation

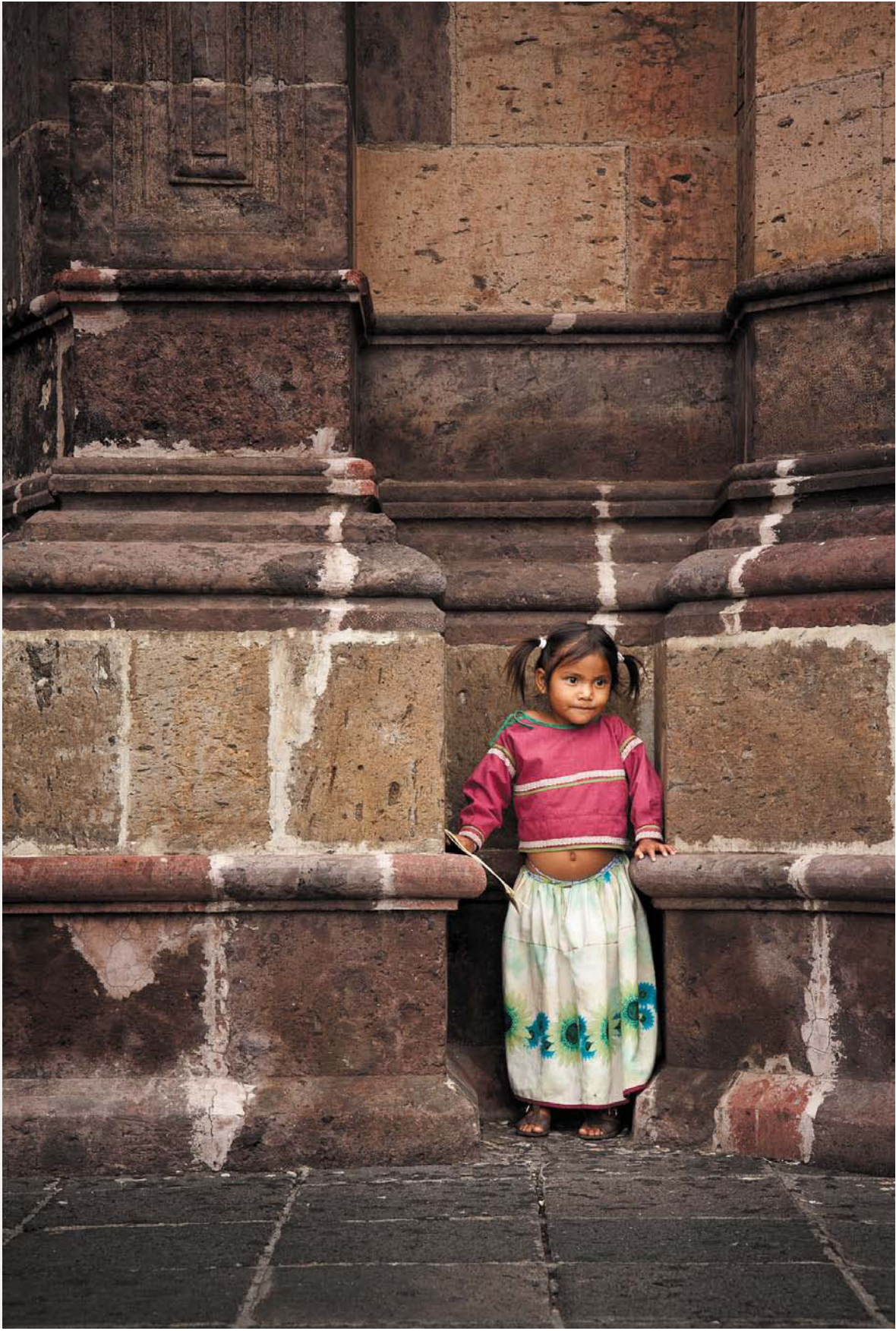
When I saw this girl standing outside of a church in Guadalajara, I knew I had a photograph. Her small size and youth stood in stark contrast to the large and aged church. I wasn't just seeing a pretty little girl—I was seeing her within the context of the space she was in.

But even before I had discovered her, my camera was prepared to make the image. Because of the overcast day, I had already set my ISO to 400 to address the lower light levels. My white balance was set to cloudy to ensure the best color accuracy. My aperture was set to f/4, which ensured that, whether I was out in the open or in shade, I could use a shutter speed fast enough to allow me to handhold my camera with a moderate zoom lens and expect a sharp photograph.

So, when I saw the little girl (and after getting approval from her mother), I quickly made an initial image, checked my exposure using my histogram, and made a series of images before she ran to hide her face in the folds of her mother's skirt.

Canon 40D | ISO 400 | f/4 @ 1/1,800th

The wide range of tones and colors makes it easy for the evaluative metering of the camera to provide a good exposure, without seriously risking loss of detail in the highlights or shadows.



If I'd had more time, I might have changed my aperture to f/5.6 or f/8 to increase the overall depth of field, but I didn't have the luxury of that kind of time. And if my camera hadn't already been set in anticipation for the possibility of a photograph, I might have lost this photograph while I busily tried to check and adjust my camera's settings.

The photograph is well exposed and sharp not merely because I had the "right" settings, but because I was thinking about what I was seeing and not fixated on my subject. I was able to assess that I had a range of colors and tones, none of which appeared to be extremely dark or bright. That let me know that I wasn't faced with an extreme contrast range and that I could expect a good exposure with either the multi-pattern or center-weighted meter.

A quick glance at my shutter speed of 1/800 second let me know that I not only had a shutter speed fast enough to produce a sharp photograph with my 46mm focal length, but also that I had some flexibility in changing my aperture if I had the desire or the time to do so.

The cloudy skies had remained throughout the morning, so I knew that the cloudy white-balance preset would help ensure accurate color for her skin, her skirt, and the church, eliminating the need to correct white balance later in Photoshop.

I probably had less than 10 seconds with this young girl, before her shyness got the better of her. But within those 10 seconds, I was able to produce an image that expressed what I saw and felt about that moment.

Working within limitations

What drew me to the image of this hat was the quality of the direct sunlight on it and the backboard. The color contrast between the hat and the blue board was striking and stopped me in my tracks.

But even before making my first image, I knew I faced a challenging condition when it came to the exposure. The direct sunlight was producing many high-contrast scenes all around me and, if I wasn't careful, I could produce images that were either over- or underexposed.

My camera was already set to an ISO of 200, a white balance of sunny, and an aperture of f/4 when I discovered the scene, but as my initial shot showed me, I faced some challenges.

Canon 40D | ISO 200 | f/7.1 @ 1/1,250th

The large area of shadow and bright crown of the hat produced a high-contrast scene, which required me to apply exposure compensation to ensure that I retained the detail in the highlights.

The first challenge was the issue of exposure. The crown of the hat was reflecting a lot of the sunlight. The multi-pattern metering of the camera, in its attempt to provide a good overall exposure for both the shadows and the highlights, was resulting in an overexposed image. I confirmed this by quickly referencing my histogram.

I also knew that my aperture was too wide to allow me to render much of the hat tack sharp, which was important to me. The fine fibers of the material were an important element of the shot.

So, I closed down the aperture several stops to f/7.1, adjusted my exposure compensation to –2/3, and, after taking another test shot, found that I was no longer risking overexposure. From there, I was able to take a series of images, carefully refining my composition until I had the image that I was happiest with.

If I had been using the camera in fully automatic mode, I might have been able to pull off the image of the little girl. The same can't be said of the hat image, which would have suffered from overexposure and a loss of important detail. I was shooting raw, so I might have been able to recover some of that detail in the raw converter. But I'm not trying to create more things for me to do in Photoshop—I'm trying to get it right in camera, at the moment of exposure.

Creating a Starting Point

Presetting my camera's ISO, shutter speed, aperture, and white balance not only prepares me for those unexpected photographic moments but also provides me a consistent starting point from which to change my camera settings. If I'm going to change my aperture or white balance, I don't have to waste precious seconds figuring out what my last setting was or, worse yet, taking several bad exposures before realizing that my settings were for a shooting situation from the night before.

Canon 40D | ISO 400 | f/6.3 @ 1/500th

Shots like this likely wouldn't be possible if I were preoccupied with my camera settings. Checking and changing white balance, shutter speed, and ISO can rob me of the time I need to actually make the photograph.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Most important, it gets me into the habit of looking at and analyzing the quality of the light. This helps me to make solid choices in terms of camera settings and gives me an idea of how my subject and scene will be rendered in the final photograph.

I was in New York, walking with a friend, when I noticed the occasional shafts of light hitting the sidewalk on which we were walking. Though I didn't see anything that inspired a photograph, I knew to keep an eye out for something that was illuminated by these periodic shafts of light.

Yet, even before a photographic moment presented itself to me, I set my camera as if I had already discovered my subject. I set my white balance to the sunny preset. Because I was carrying a 70–200mm lens, I knew that I wanted to be shooting at least at 1/250 second. So, I increased my ISO to 400 and set my exposure manually for 1/500 second at f/6.3, by taking a meter reading off the sidewalk, which was fairly neutral.

No more than a few minutes later, I saw a woman buying ice cream from an ice cream truck. The way that the light was hitting her face was exactly the kind of thing I was hoping to discover. I raised the camera to my eyes and prayed that I would hold it steady enough to capture a sharp image. I took several images in rapid succession, waiting for just the right moment between the vendor and the woman, focusing most of my attention on the exchange of money and food. The transaction happened in a matter of seconds. I wouldn't have been able to produce a picture so well exposed and sharp had I not been aware of the light and set my camera accordingly.

Ultimately, knowing the light informs what you do with the camera. The ISO, shutter speed, aperture, and white balance are not arbitrary things that require some sort of mojo to understand (though I hear that can help on occasion). It's ultimately about using the camera to accurately capture not only what you see but also how you see it.

Knowing When to Bias

Most of the time, I use the multi-pattern metering mode of my various cameras. I often want to capture a good range of highlight and shadow detail for many of my images, so I find that this metering method helps me to achieve that. I still reference my histogram, especially in high-contrast scenes, but I find that multi-pattern metering provides excellent results.

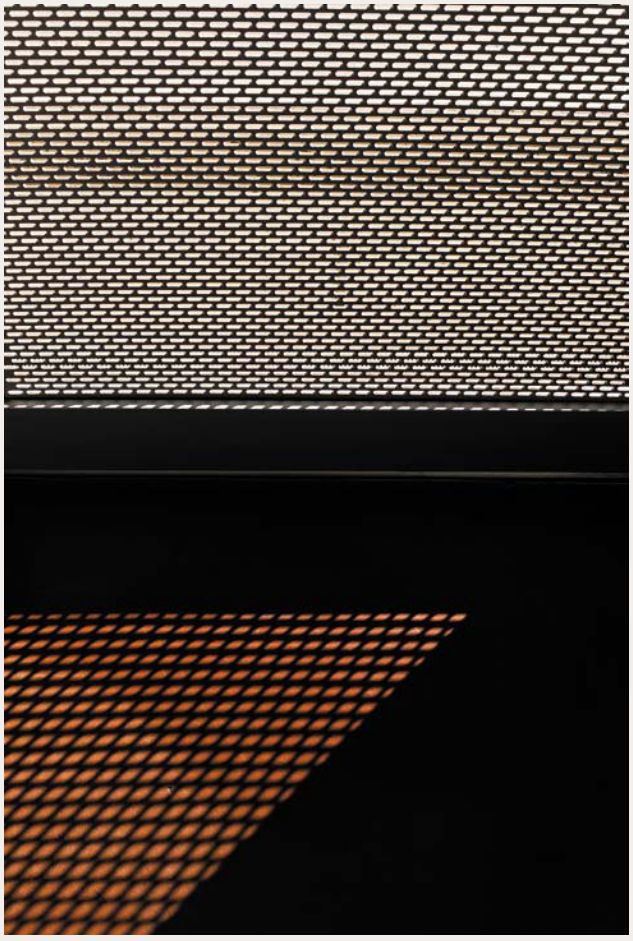
However, there are times when I want to bias my exposure for specific elements in the frame. So, while the multi-pattern meter may deliver a good overall exposure, it may not produce an image that accurately captures how I was responding to the light.

I was waiting at a rail station in Las Vegas when I saw the pattern created by the sun passing through a metal barrier onto the ground. I loved not only the repeating pattern but the strong triangular graphic created by the shadow.

I knew that the multi-pattern metering of my camera would increase the exposure slightly to reveal more details in the shadows, and that's something that I didn't want. Instead, I wanted to emphasize that high contrast, and I knew that the darker the shadows were, the stronger the pattern would be. So, I used center-weighted metering and biased my exposure for the highlights. This ensured that I didn't risk overexposure in the brighter areas of the frame.

The light not only leads me to my subject but also informs how I control and use the camera. There were dozens of people standing around me, many of them with cameras, but I was the only one seeing this scene in this particular way.

I took this photograph of a fence during a workshop with dozens of photographers around me, but no one else was noticing how the late-afternoon light was revealing the pattern of the fence. The presence of light and shadow and the repeating pattern were transforming this ordinary fence into something extraordinary.



Leica M8 | ISO 160 | f/8 @ 1/90th

Many times I don't want shadow detail. Instead, I want to emphasize the contrast of the scene. Though I may be able to create this effect in Photoshop, it takes less time to do it in the camera.

Olympus E-3 | ISO 100 | f/13 @ 1/125th

Whenever a portion of my scene is white, I know that I have to be careful about the accuracy of my exposure. I don't want to risk overexposure, nor do I want the white to be rendered as gray.

But, like the previous photograph, the high-contrast scene posed a challenge to the exposure system of the camera. The multi-pattern metering would have tried to open up those shadows to reveal detail, which would have resulted in overexposure of the fence (and ruined the image). So, even before I made an initial shot, I adjusted my exposure. I was in manual mode, so I simply decreased my exposure by one stop, increasing the shutter speed from 1/60 to 1/125 second. A quick test shot and a check of my histogram ensured that I had a good exposure for my highlights.

I could've adjusted the exposure using the aperture, but I wanted to maintain a small aperture to maintain a high degree of depth of field. And because I was using my camera on a tripod, I knew than my 1/45 second shutter speed would be more than adequate to maintain a sharp photograph.

Much of this knowledge comes from having made thousands of mistakes, where I wasn't evaluating the light and letting that inform what I was doing with my camera. Thousands of badly exposed frames have reminded me that I have to be constantly aware of how light is impacting the way the camera and I see.

TWO OTHER KEY SETTINGS: FOCUS AND DRIVE MODE

In addition to setting the ISO, shutter speed, aperture, and white balance, I preset two other key settings—focus and drive mode:

Focus: When it comes to autofocus, I set my camera to single-servo mode. This means that the camera detects focus and, once locked, won't refocus until I let go of the shutter release button and depress it again. (In continuous focus mode, the camera progressively adjusts for the movement of the subject or the camera and tracks the subject as it moves within the frame.)

I prefer single-servo mode, because I want to confirm that I've achieved focus whenever I make an image. This is especially important when I'm working with a wide aperture and a limited depth of field. For portraits, this is especially critical—I want to make sure that the eyes of my subject are in focus. I either refer to the focus indicator in my viewfinder or listen for the audible beep to confirm that I've achieved focus; then I continue making photographs.

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The cameras I use have multiple AF sensors and, out of the box, the cameras are often set to automatically choose whatever grouping of those AF sensors it thinks should be used to detect focus based on a range of factors, including contrast, details, and the proximity to the camera. Though this may be advantageous for those who shoot sports, I prefer to choose the AF target manually. I like knowing exactly what part of the scene or subject is being targeted for focus detection. Again, this is crucial when working with a limited depth of field, because I don't want the camera to focus on my subject's shirt rather than his eye, which can happen if I'm not careful.

Whether I'm shooting portraits or landscapes, knowing exactly where my point of focus is helps me make an informed decision of how I want to use depth of field, whether I'm working with a wide aperture and a shallow depth of field or a small aperture and a deep depth of field.

Drive mode: The drive mode controls whether I take a single shot or a successive series of shots with each depression of the shutter-release button. In single-shot mode, I have to release the button and depress it again each time I want to make a photograph. In continuous mode, the camera keeps taking exposures as long as I maintain pressure on the button and until the buffer or the memory card is full.

I set my camera to continuous high mode, which provides me the fastest burst rate possible for the camera, typically anywhere from four to seven frames per second, depending on the camera I'm using.

I do this not merely because I like hearing the shutter snap, though that is a lovely sound, but because it helps me produce a sharp photograph. How does it do that? Camera shake is often the biggest culprit in soft images, especially with moderate to slow shutter speeds. The slight vibration created by hitting the shutter release button or even recomposing a shot can be enough to ruin image sharpness. But by having the camera in the continuous drive mode and firing several images in rapid succession, a very cool thing happens: If camera vibration is a factor, the very first frame is the soft one. The subsequent frames are sharper, because the vibration doesn't impact those images as much, if at all. Because the firing rate is set at its highest burst rate, the subsequent images are virtually identical, with the only difference being their comparative sharpness. This technique has saved my butt on more than one occasion.

By always having the autofocus and drive modes set in this way, I can accurately anticipate how the camera will behave and focus my attention on the things that will really make a difference in my image.

Nikon D80 | ISO 200 | f/7.1 @ 1/80th

By starting from a consistent group of camera settings, I can quickly make any necessary adjustments that help me with the portraits I make of people I encounter walking the street, such as this singer in Los Angeles.

Nikon F4 | ISO 64 | f/4 @ 1/250th

I developed sensitivity to low shutter speeds and ISO when shooting slide film, which, with its low ISO rating, didn't provide the kind of flexibility we enjoy today. With slide film, I had to nail the exposure and sharpness, or the image was lost forever.

Shutter Speed, ISO, and Focal Length

One of the first considerations I make when I go out to shoot is the quantity of light that I have to work with, which determines the ISO setting I will use. As well as technically controlling the sensor's sensitivity to light, my choice of ISO has a significant impact on my choice of aperture and shutter speed, as well as on my ability to handhold the camera and expect a sharp photograph. Camera shake is the single most common reason for soft photographs, and this problem is made worse by the use of shutter speeds that are too slow. Controlling the ISO is often one of the best ways to eliminate this issue and create tack-sharp photographs.

The revelation came for me when I began to get increasingly frustrated with the softness of my images. Despite the fact that I was using state-of-the-art equipment and great glass, some of my photographs appeared soft. The images lacked the crispness that I saw in others' photographs—especially the glossy brochures that had encouraged me to buy the equipment in the first place.

The problem, however, wasn't with the equipment—it was with the shutter speeds that I was shooting at. They were often too slow. As I looked at the EXIF data recorded by my digital camera, I began to see that, because I was shooting at slow shutter speeds of 1/30, 1/15, or even slower, my images were subject to camera shake. The slightest vibration, even that of my finger depressing the shutter-release button, was enough to reduce sharpness. And nothing is more frustrating than thinking you have a great shot only to discover that it's too soft to enlarge beyond a 3-x-5-inch print.

> **NOTE:** The general rule of thumb when it comes to determining a minimum shutter speed is 1 over the focal length. So, if you're using a 100mm lens, the minimum shutter speed should be 1/100 second. If you were using a 200mm lens, a shutter speed of at least 1/200 second would be needed.

I had to become aware of my shutter speed whenever I would begin to make photographs. Even if I were using program or aperture priority mode, I needed to look at my LCD or viewfinder to discern what shutter speed I was shooting at. And if I determined that the shutter speed was too slow, I had to make some change in order to get that shutter speed up to a reasonable level.

Let's say I have a correct exposure of 1/125 at f/5.6 at ISO 100. I change the aperture to f/8, thus cutting the amount of light in half. My images at that point become underexposed by one full stop. I can compensate for this in two ways:

Reduce my shutter speed. I can simply reduce my shutter speed by one stop and shoot at 1/60 second. The change to 1/60 at f/8 provides me exactly the same amount of light as f/125 at f/5.6, and I'm good to go.

Increase my ISO. If I were shooting with a 100mm lens, a shutter speed of 1/60 second would be too slow for me to handhold the camera and still get a tack-sharp image. So, the better alternative would be to increase my ISO from 100 to 200. This increases the sensitivity of the sensor by a full stop, which is equivalent to decreasing my shutter speed to 1/60 second.

Canon 20D | ISO 1600 | f/1.4 @ 1/30th

The only source of illumination was from this monk's laptop. Had I used flash, the mood would have been lost. My only choice was to increase the ISO, set my aperture wide open, and try to keep my hands as steady as possible.

USING CAMERA-STABILIZATION FEATURES WISELY

Vibration reduction (sometimes called optical stabilization or image stabilization) is a feature in many of today's cameras and autofocus lenses. These features promise the ability to shoot at shutter speeds much slower than would normally be suggested and still produce sharp photographs. I don't doubt the veracity of these statements, but I haven't become dependent on these technologies to produce sharp photographs. Instead, I try to practice solid technique and use these technologies as a backup. Unfortunately, I see many photographers use poor technique, expecting the cameras to make up for it. The results are often as problematic as if the technologies weren't present in the first place. *Remember:* Technology is great, but good technique is even better.

Beginning with ISO

If there is an abundance of light, my choice will likely be to change the aperture/shutter speed combination. If light levels are low, my choices may become limited because I'm working either at the widest aperture provided by the lens or at shutter speeds that are too slow, particularly if I don't have the benefit of a tripod.

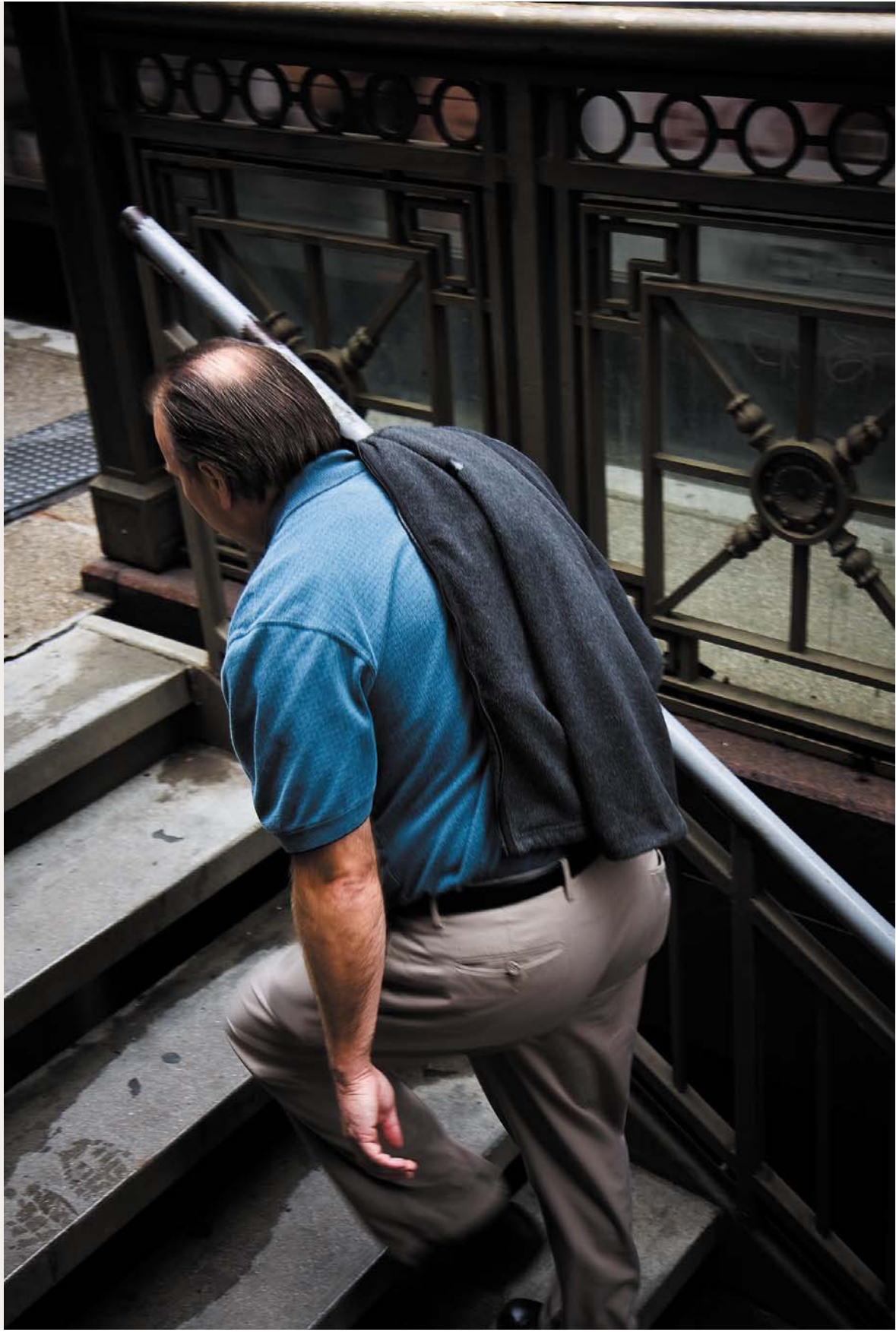
So, when I walk out the door to begin a day of shooting, I evaluate the quality of the light outside my doorstep. If I'm shooting on a bright sunny day, I set my ISO to 100 or 200. If it's a cloudy day, I set my ISO to 400. If I walk indoors into a home or a restaurant, I increase my ISO to 800, 1600, or even higher. I do all this well before I've even found the first image I intend to take.

I use this general approach to get me in the ballpark of the ISO that I need. And with my camera set for aperture priority mode, I set my aperture for f/4, which ensures me a relatively fast shutter speed, whether I'm in direct sunlight or open shade. So, even if a moment occurs in which I have only seconds to react, I can be pretty much assured that these base settings allow me the means to make a well-exposed and tack-sharp image. And if I do have time to make changes to my settings, I have a consistent baseline from which I'm always starting—and that means I spend less time trying to figure out what's happening with my camera.

In this image, I was walking around Chicago with a 17–55mm f/2.8 zoom lens. The day was slightly overcast but still relatively bright, so I set my ISO to 200. Because the light was pretty uniform, I knew that I could keep my lens wide open and expect a reasonable shutter speed for most of the focal lengths I was using. When I saw this man walking up from the station, I didn't have time

Canon 40D | ISO 200 | f/2.8 @ 1/50th

Presetting my camera for the general lighting conditions provides me the ability to capture fleeting and unexpected moments such as this one.



to check my settings. I quickly composed and made three frames in rapid succession, and the moment was gone.

I was able to capture this image because I had already given consideration to the quality of the light and had set my ISO and exposure accordingly. As a street photographer, I sometimes have only seconds to react. Having my camera preset allows me the freedom to quickly compose and shoot. The final result is a well-exposed and sharp photograph.

Awareness of the light and its influence on your ISO and exposure settings serve as the foundation for every image you make. Though many of today's cameras feature auto ISO, which dynamically adjusts the ISO for changing light levels, I set my ISO manually. Why? Not because setting the control manually provides me any better results, but because it demands that I pay attention to what's happening with the light. By paying attention to what's happening with the light, I create the important link between the light and the settings on the camera. No longer are they settings that I have to change because of some hard-and-fast rule I read in a book or heard in a class. Instead, the controls are connected to how I see and how I want to translate that vision into my final photograph.

Slowing Down with Manual Mode

The two exposure modes I primarily use are aperture priority and manual. I'm using manual mode more and more, because I believe it provides me the most flexibility and control. Most important, it keeps me on my toes, forcing me to pay attention to what's happening with the light.

Though I can adjust my exposure in an automatic exposure mode using the camera's exposure compensation feature, I have to take the time to navigate to a secondary button or dial to do so. On some cameras, this requires me to take my eye off of the viewfinder, which can mean the loss of precious seconds.

My thumb and index finger are already near the dial controls for aperture and shutter speed, so I can make quick adjustments to exposure without moving my eye away from the viewfinder. In many instances, this way of shooting has meant the difference between getting the shot and not.

My workflow begins with setting the ISO for the overall lighting conditions I'm shooting under. Then I choose a starting aperture with which I want to work. Those two settings become my priority for controlling how my image looks. Then I adjust my shutter speed until my meter and histogram indicate that I have a workable exposure. Finally, I make sure that the resulting shutter speed is fast enough for the focal length that I'm using.

The best thing about working this way is that, typically, the only exposure control I have to be concerned with changing is shutter speed. If I want to adjust my exposure up or down, I simply change my shutter speed, which I can do in a second with my thumb, without taking my eye off my subject.

Manual exposure mode forces me to slow down and be more methodical about how I'm seeing and using the camera. Like many other photographers, I can get caught up with the moment and make a simple mistake that can cost me a photograph. Manual exposure mode requires that I take a beat and think before depressing the shutter release.

4 The Color of Light: White Balance

A photographer friend once said to me, "Just because you shoot in color doesn't automatically mean that you're seeing in color."

Color is everywhere, and it's a big part of virtually every photograph that I make. But the presence of color alone doesn't mean that I'm on my way to making a great color photograph. It's only the careful evaluation of colors in relation to each other, to the light, and to the various elements in the scene that lead me to make the conscious and creative choices that help make a good image.

Feeling Color

Color was an afterthought in many of my early images. I photographed a woman who just so happened to be wearing a red shirt. I photographed a landscape that by chance had some yellow flowers in the foreground. I was looking at the people and the objects that were within my frame, but I wasn't really seeing what was happening with the light and, consequently, with the colors. Yes, I might have seen it and recognized it later, when I looked at the photographs onscreen or in a print, but I wasn't seeing it when it mattered most: the moment of exposure.

As I continued to shoot, I realized that I was often responding to color. It was the color itself that was making me stop, raise my camera, and make the

Canon 40D | ISO 100 | f/10 @ 1/200th

Making the choice to follow the light provided me the opportunity to discover a photographic subject that I otherwise would've missed completely.

photograph. When I wasn't conscious of my attraction to color, I would make a photograph, but it would include a lot of extraneous elements in the frame, which weakened the image and would make me question why I had made the photograph in the first place.

The problem was that if I didn't understand what I was responding to in the scene, I was just snapping the shutter and hoping the camera would capture *something* for me. And it did capture that something ... along with a lot of other elements, which, more often than not, weren't important to the story or the photograph.

But that changed when the switch in my brain was flipped, and I realized that I was not only seeing color but also feeling color. I was having a visceral reaction to what my eye was seeing. Now what I had to do was find a way to use the camera to capture that physical reaction within the confines of the frame.

On the afternoon that I made this image of the building, I had decided to get out of the house and just allow the light itself to lead me to my subject. I didn't go out with any preconceived notions of things to photograph. Instead, I started with a completely blank slate, looked at where the light was falling, and let that alone dictate who and what I photographed.

So, when I saw this roofline, I first saw the light and then I saw the color, and I experienced that wonderful quickening of the heart. I had the clear blue sky and the bright white wall, but I also had the little bit of red in the shade. The contrast between those three colors and the vibrancy they provided shouted out to me for a photograph. So, I made a series of images, carefully refining my composition for line and shape until I finally felt that I had produced an image I would be satisfied with.

To everyone else walking past, I was just a guy with a camera taking a photograph of the side of a building. But as you can see here, I was doing much more than that. I was seeing the light. I was seeing the color. And because I knew what I wanted to emphasize in this image, I used the added presence of line and shape to build a strong, graphic composition.

Other times, I'm led to a subject not by the light, but by the color itself. Yet, it's my awareness of the quality of light that allows me to make the most of the colors and subjects that I find.

While walking down a street in San Francisco, I spied this young woman wearing a purple jacket and carrying a red purse. The energy of the purple and the red were exciting, and I knew that I had to ask to photograph her. Not only did she say yes, but there was a bright yellow wall right behind us, which served as the perfect background for my portrait.

Because it was a cloudy day, I had already increased the ISO and adjusted the white balance before I discovered her at the corner. She was pretty shy, and I knew I didn't have a lot of time to spend photographing her. So, having most of my camera settings preset allowed me to quickly make a series of images of her. But the image isn't just about a woman standing on a street; it's also about the energy created by the juxtaposition of the red, purple, yellow, and black.

Color is an important element in these and many of my photographs not merely because they're colorful, but because they're allowing me to reveal how I experience the moment. I can and have made images just because they were colorful, but those images quickly become repetitive and lack the impact that I'm hoping for. Color, when used right, becomes as important a tool as light, focal length, and exposure.

Olympus E-30 | ISO 800 | f/3.1 @ 1/160th

With my camera preset, I was able to take time finding the ideal location for this photograph, which not only provided me the perfect background but also allowed me to use the quality of the soft, diffused light.

Light's Impact on Color

One of the more important things I've come to understand is how the quality of the light impacts the rendering of color in a photograph. If you think a red door is always a red door, think again. The color of the door appears to change in appearance relative to the quality of the light that's illuminating it. If you shoot that door under direct sunlight and then later, on a cloudy day, the resulting photographs will be markedly different, as the hue of the red changes and shifts.

Colors under direct sunlight possess more vibrancy and saturation. There is a "pop" to such colors that is a result not only of the harshness of the light, but also of the increased contrast that such illumination produces. Those same colors photographed in the shade or on an overcast day will appear more muted and less intense because of the diffused and softer quality of the light.

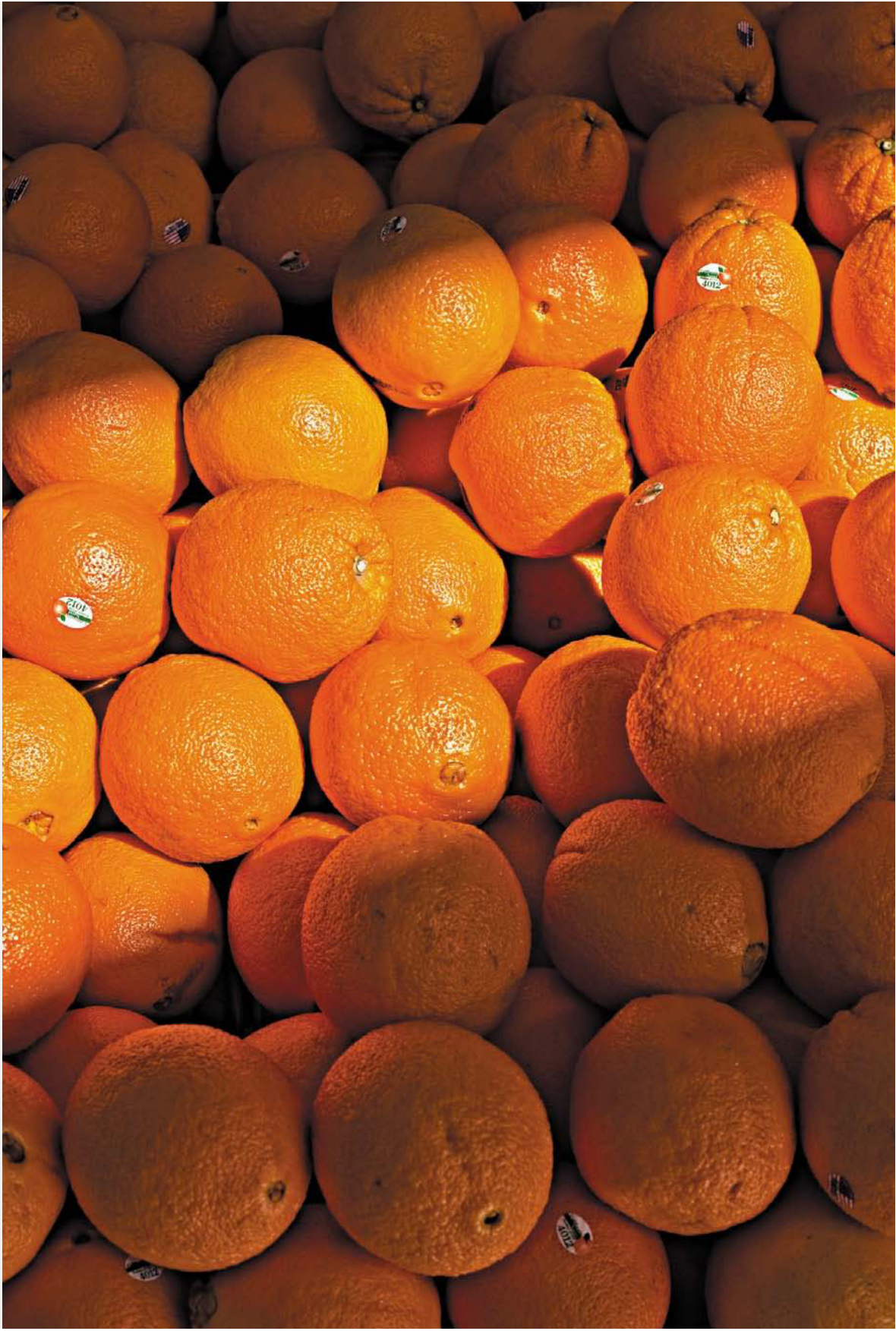
The images of these oranges at a fruit stand reveal the amazing differences of color even within a small, confined area. The oranges illuminated by the direct sunlight have a high degree of saturation that's lost as you move down into the shadows, where the colors become duller. By the time you move down to the lower-right corner, where light is being reflected off the street and into the oranges at the bottom of the stand, you see a color that has a saturation and contrast somewhere between what you find in the direct sunlight and shadow.

Light and color are intertwined. They aren't independent qualities of a scene or photograph. If I see color, I'm examining the light and what it's illuminating. If I'm following light, I'm examining what's happening to color in the direct sunlight, in the shade, or even beneath a neon sign.

The color of any object will shift in hue as a result of the different qualities of light, but few are more important than the light's color temperature.

Canon 5D Mark II | ISO 100 | f/9 @ 1/160th

The difference in the color of the oranges is largely the result of the different color temperatures of the diverse range of light found in this single scene.



Understanding White Balance

In order to understand light, you need to understand that light consists of color. The light that illuminates our world is made up of three primary colors: red, green, and blue. The combination of these colors impacts how the color in the scene you're photographing is rendered by the camera. The quality of light can range from the cool blue of early morning to the warm, orange glow of sunset.

The color temperature of any light source is based on the experiments of British physicist William Kelvin, who discovered that a piece of carbon produced varying colors at different temperatures. On a scale ranging from 0 to 10,000 Kelvin, light at lower temperatures of 1,850K to 3,380K (candlelight, tungsten) produces a warm, reddish glow; higher temperature ranges, such as 7,000K to 10,000K (overcast, open shade), produce a bluish color cast.

If there is a baseline for color temperature, it's direct sunlight, which has a color temperature of around 5,500K. This is the kind of light you probably find yourself shooting under on most days.

On an overcast day, with clouds that diffuse the rays from the sun, the light is cooler, with a color temperature of around 6,500K. This is a much cooler (or bluer) quality of light, which, if not corrected for, will produce a slight bluish tint in all colors, especially skin tones.

When you shoot under tungsten lights, which have a color temperature of 3,200K, you'll see the warm, orange/yellow glow of a much warmer light source.

You can see the difference in color temperature in this portrait of songwriter and producer Preston Glass. His face was illuminated by the direct sunlight of the late afternoon sun, which has a slight warm glow to it. The yard that was behind him and served as the background was in shade and had a cooler (bluer) color temperature. This produced an image in which the contrast between the warm and cool light added a nice vibrancy to the image, in addition to reinforcing the color contrast between his skin tone and his hat and jacket.

As you travel through the range of light sources, including fluorescent, halogen, and open shade, you'll see not only difference in color temperatures, but also, more important, their impact on the rendering of color in your scene.

Olympus E-30 | ISO 160 | f/3.7 @ 1/200th

The contrast between warm and cool is something I was able to use to my advantage because of my awareness of color temperature and knowledge to find the best light possible.

The good news is that you don't have to remember these numbers in order to make a good photograph. They're good to know, but not knowing won't adversely impact your photographs. What's important to know is that whichever light source you're shooting under, if you don't set the white balance correctly on your camera, your colors may not be as accurate as they could or should be.

Setting White Balance

Color accuracy is critical for the work I do. Although I have a lot of flexibility and control in my editing software, it all has to begin with what's happening with the camera. If I nail the color when I make the image, I make considerably less work for myself. Get it wrong, and I have to spend way too much time trying to make it look right. Color accuracy begins with white balance.

The Auto WB myth

Auto White Balance (WB) is the default setting for all digital cameras. And though the word *auto* holds a lot of promise, the camera's Auto WB isn't the universal balm people would like to think it is. Though Auto WB does occasionally produce decent results, it isn't the best if you want the highest color accuracy.

Why? Because Auto WB can be fooled. It works by evaluating the colors in a scene and tries to recognize what the light source is. If you're shooting people wearing a variety of colors on a sunny day, it'll likely produce an accurate white balance. But if the scene includes subjects or objects that have a strong blue or red color to them, this may lead the camera to believe that the light source is something other than what it is. It may not completely veer to a fluorescent or tungsten, but it may attempt to achieve some sort of "compromise" of color. Often, the result isn't the best color that your camera could produce.

Though under direct sunlight the Auto WB may offer good general results, in the shade or on cloudy days, I often see images with a slight bluish tint. This tint becomes glaringly obvious when you shoot comparison shots of the scene using the Auto WB and the appropriate preset. Though you may be able to correct the white balance later in Photoshop, it takes only seconds

to get it right in camera. How long does it take you to restore accurate color on your computer?

Auto WB isn't all bad, of course. It may be beneficial when you're shooting under mixed lighting (for example, tungsten and fluorescent). Instead of switching back and forth between settings, you may want to just hedge your bets with Auto WB and correct for the slight variations later. This doesn't happen often, but it's something to be prepared for.

Preset white balance

Often, the best choice is a preset white balance, which is set for a specific color temperature. Each preset on your camera is represented on your camera's LCD with a symbol. These symbols vary from one camera manufacturer to the next, but they're commonly a sun (direct sunlight), a cloud (cloudy), a house (shade), a tube (fluorescent), and a bulb (tungsten). With a fixed Kelvin value, the camera can't be fooled by the different colors that may appear in the scene.

So, if you're shooting scenes at the beach on a bright sunny day, you'll choose the direct sunlight WB setting. If you move into the shade of a building to take a portrait, you set your camera to the shade WB setting to avoid the bluish color cast produced by that kind of light.

White balance presets are the best starting point for accurate color. You have to be aware of the lighting before you begin shooting, but you'll easily and quickly develop this skill. Not only will it help you to get the most accurate color from your images, but it will provide you the knowledge you'll need when you *want* to introduce those color casts to your images for creative effect.

I photograph people so often for my work that I've become very sensitive to how skin tones are rendered in my photographs, whether in the studio or on the street. The care with which I determine the type of light I'm shooting under with my white balance setting allows me to have a reasonable expectation that the colors I produce in the camera are as accurate a representation of what I experienced as possible. I don't want to spend unnecessary time trying to fix bad color in software. It's never as accurate or as good as when I get it right in camera.

Custom white balance

Sometimes you may want to create a custom white balance. For example, if you're shooting a line of clothing or a new breed of roses for which precise color is important, a custom white balance setting will provide the best results.

You can achieve a custom white balance by taking a photograph of a white or gray surface within the lighting conditions under which you'll be shooting. The camera then uses this file to establish a precise white balance setting, which you can use for the entirety of the shoot (assuming that the lighting doesn't change). You may be able to save this setting as a permanent setting in your camera. This option is especially useful for studio photographers whose lighting remains constant.

When measuring a custom white balance off a white or gray card, place your camera in manual focus mode—it won't be able to focus because of the lack of contrast and detail. Also, fill the frame with the card or surface to ensure that you get accurate results.

> **TIP:** Several manufacturers sell white balance cards to aid you in setting a custom white balance. These cards can save you the time of trying to find a neutral surface. Alternatively, you can use an ExpoDisc, which is a filter that you temporarily place in front of the lens for determining white balance. For color-critical work, these tools can be convenient and effective.

Custom white balance is the best option when you're photographing in a room with energy-efficient bulbs. There are currently no existing WB presets for these newer light sources. Auto WB may provide you a good overall result for snapshots, but if color is critical and you don't have the ability to control the lighting otherwise, a custom WB is the best alternative.

Canon 20D | ISO 1600 | f/3.5 @ 1/90th

Lighting at a performance is both challenging and unpredictable. Auto WB would result in images shifting in color in every way. Locking my white balance to a preset provided more consistency and a common point for refining color later.

White Balance and Raw

Most of today's DSLRs provide you the ability to record raw files, as well as JPEGs. Raw files are the raw data produced on the sensor with few to no enhancements for color, sharpness, and contrast.

JPEG files have a variety of enhancements, which adjust sharpness, contrast, and saturation based on what the camera has been designed to believe is a good image. The degree of adjustments vary, but the differences can be seen especially when you're using scene modes, which are geared for specific types of photography (such as portraiture, landscape, or close-up). With scene modes, the camera applies enhancements that hopefully deliver an image straight out of the camera that you can happily print or display.

Raw leaves such adjustments for you to control with the software you received with your camera or with Photoshop, Aperture, Lightroom, or another image-editing application. Many photographers favor raw because it provides them with the greatest degree of control and promises the ability to produce the best image possible, even if some work is required on the photographer's part.

One of the advantages of shooting raw is that it allows you to adjust white balance well after you've taken the image. So, if you've accidentally set the white balance incorrectly, you can set it for the correct value in your image-editing software, without any loss of quality. Correcting color in a JPEG is notoriously difficult and never delivers an ideal result. It can be done, but it's no fun. Raw is the better alternative.

> **REMEMBER:** Don't make the mistake of thinking that you don't have to worry about white balance. Leaving white balance to be addressed later in Photoshop or in a raw converter just means an additional step, which becomes particularly problematic if a shoot includes a variety of different lighting conditions and light sources. Though raw can help you out when you make mistakes, you still want to pay attention to the light and get white balance right from the very beginning.

The Role of Color

When I'm at my best, I'm seeing color as a fine ingredient in a recipe. In and of itself, it may have its interesting qualities, but it's only when color is mixed in with everything else (light, shape, line contrast, focus, and exposure) that the beauty of the color can reveal itself.

If people look at my photographs and the only thing they say is, "Nice color," I don't think I've succeeded. I'm striving for that experience that I have when I look at the images made by my photographic heroes, filled with a sense of wonder at how uniquely they see the world.

I don't achieve that every time I pick up a camera, of course. Most times, I fail. But as I continue shooting, I have those moments when I release the shutter with the thrill that I've not only seen something wonderful, but managed to capture it in a fraction of second. It's as close as I'll ever get to trapping a genie in a bottle.

I want to encourage you to not merely think of white balance as some mechanical setting on a camera, but think of it as one of the more important tools in your camera bag—a tool that will allow you to express how you see and photograph the world.

ONE COLOR AT A TIME

One of the best ways I developed my eye for color and light was to give myself assignments in which I would photograph only things of a single color—for example, only reds, only yellows, only greens, only blues, and so on. I encourage you to do the same. Not only will you discover new subject matter that you never would've considered before, but you'll be amazed by your discovery of the many different hues of reds, yellows, greens, and blues that exist in the world and how they're each informed and transformed by the quality of light.

5

Building Visually

Seeing the light is not just about the buttons and dials I adjust on my camera. Evaluating the light allows me to build my photographs. Though I'm working within fractions of a second, it's my awareness of how light is interacting between my scene and the subject, which is at the heart of every image that I create.

In order to examine and assess light, you need to understand the five key factors that we respond to visually, whether we have a camera to our eyes or not.

Canon 40D | ISO 100 | f/11 @ 1/125th

The bright sun on the keys and the player's hand help make this part of the image the visual anchor for the entire photograph.

The Five Visual Draws

A photograph is a means of communication. Though it doesn't use words, it has a visual language that allows you as a photographer to direct the viewer's attention to a particular subject or moment. It's the equivalent of pointing a finger at something and saying, "Hey, look at this!"

Unfortunately, you can't be there every time someone views your images to explain how to look at it or what you're trying to express. The image has to speak on its own.

However, if you understand what people are drawn to visually, you can create photographs that wordlessly direct the viewer to what you consider to be the most important element(s) within the frame. What people notice in a photograph is largely controlled by five factors:

Brightness

Contrast

Saturation

Sharpness

Pattern

Each of these qualities influences where a viewer looks. Even though the process of looking at a photograph is automatic, when you know these factors, you can compose photographs that use these factors to control how the viewer experiences your images.

Brightness

A viewer's eye will be drawn to the brightest area in a photograph. Without thinking, it's the first place that the eye tracks to. Brightness is one of the more obvious considerations that I make in many of my photographs, especially with respect to where the light is falling.

In this image of the accordion player, the viewer's eye is drawn to the bright white keys and the hand. This is the spot from which the exploration of the image begins. Within the context of the photographic frame, it's where I'm directing my viewer to look first. The image has a rich range of colors and tones, but the bright area of the image becomes the visual anchor.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The viewer's eyes wander and explore the rest of the frame, but the bright area—the heart of the composition—pulls them back like a magnet.

Brightness helps me think about where I want my audience to begin their journey in my photograph. When I photographed a pair of wedding bands, I positioned the rings on top of the invitation, which was printed on off-white paper. I knew that the viewer's eye would go directly to the white surface, so that's where I placed the bands.

Not only does the background of the invitation make the shape and color of the rings easy to read, but it adds *weight* to the image. By that I mean that, even though the viewer's eyes may go up to explore the colorful flowers at the top of the frame, they'll be pulled back down to the rings, which are the most important element in the frame.

This doesn't mean that the subject always has to be the brightest thing in the photograph, though. That's just not possible. But it's important to be aware of what part of your frame is brightest, because if it isn't the subject, that bright element in another area of the frame may compete with the subject for the viewer's attention.

Olympus E-5 | ISO 800 | f/5 @ 1/50th

Identifying the brightest area of my frame helped me to place the rings in a location where they would draw the greatest attention.

Nikon N8008 | ISO 400 | f/8 @ 1/60th

The contrast between light and dark are at the heart of this dramatic shot of a bandleader conducting during a bonfire rally.

Olympus E-5 | ISO 200 | f/11 @ 1/125th

The expanse of white accented by the shapes of the car details and the line of the hood make for a strong graphic photograph.

Contrast

Brightness isn't the only thing that controls where the viewer looks in the frame. Other elements can draw the viewer's eye, even though another part of the image may be brighter. One of these is contrast between light and dark.

The difference between light and dark is an important part of any visual experience. It helps to determine shape, texture, and even distance. Contrast is a great way not only to draw a viewer's eye, but also to add punch and drama to an image.

I can easily illustrate how the difference between light and dark impact a photograph with this image of a bandleader, which I shot while in college at UC Berkeley.

It was during the annual bonfire rally before the game with our rival, Stanford. The area was dark except for the fire, which was behind the subject. So, I had to use flash in order to illuminate him and make him more than a silhouette. The resulting image creates a striking image that is largely built around contrast.

In this shot, not only is the subject the brightest element in the frame, but the contrast of his uniform and the darkness surrounding him helps to make him leap off the page. The darkness behind him defines not only the flames but also his gloved hands. The two bright spots in the upper-left corner, which are from the lights in the venue, create an area of contrast, but because they're both small and not particularly bright, they don't prove to be a distraction.

Contrast doesn't have to be literarily black-and-white, as you can see in this detail shot of a classic Rolls Royce. The whiteness of the vehicle serves as my canvas, but it's the detailed elements of the lights and the edge of the hood that become the focus of my attention.

The shape and lines created by the car's design features are strong graphic elements because of the contrast I created between them and the whiteness of the car. I could've included other elements of the car in the frame, but by shaping my photograph around those areas of greatest contrast, I was able to control how the viewer sees and experiences the image.

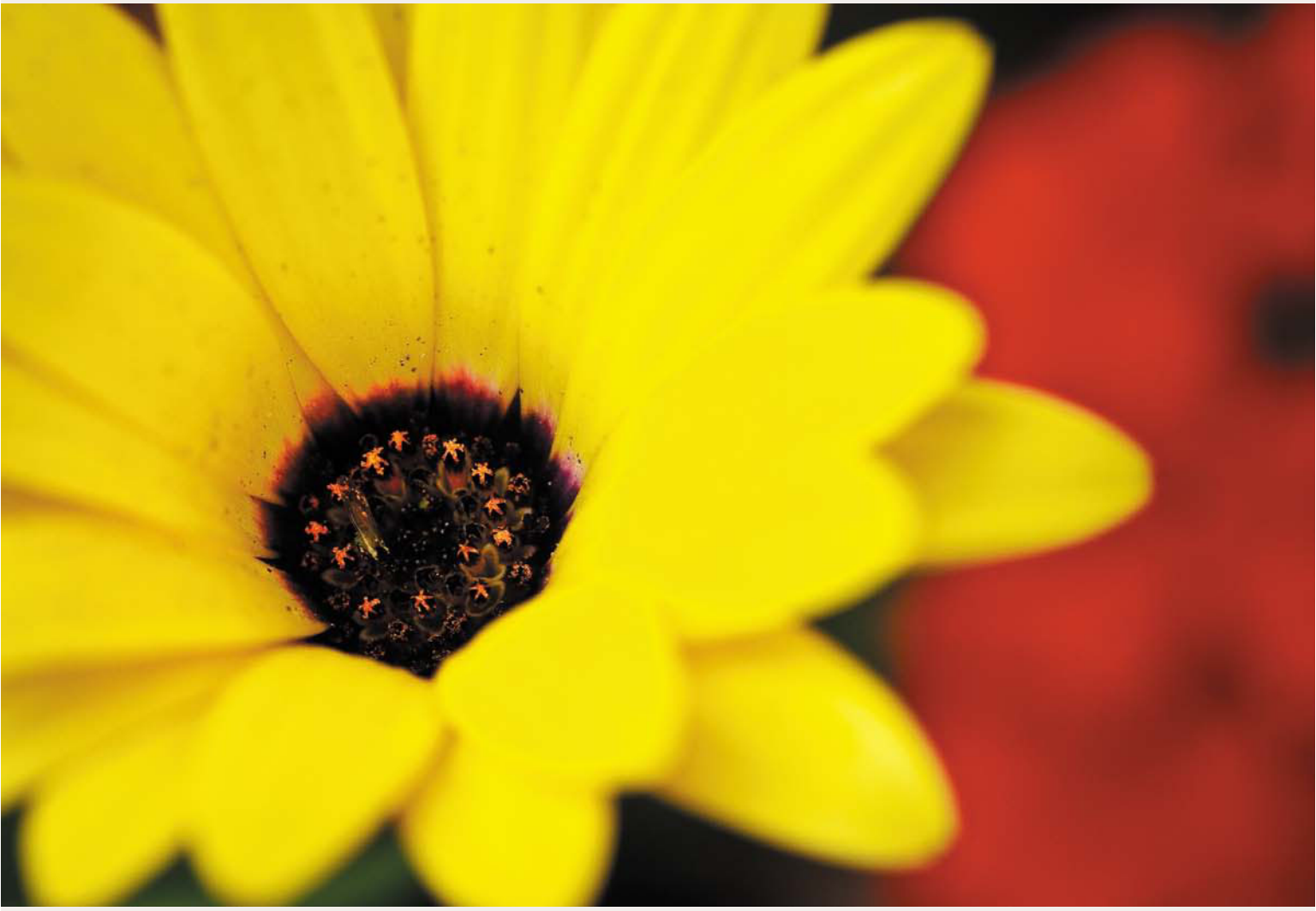
Contrast between colors plays a large role in my photography. The juxtaposition of colors can add vibrancy and impact to a photograph in some amazing ways.

My photograph of a pool player against a wall utilizes all the primary colors (red, green, and blue) in a single frame. Their juxtaposition against each other provides the images a lovely vibrancy and punch. An energy results from that juxtaposition, which makes the image more than just a photograph of a man holding a pool cue.

Whether it's the difference between light and dark, or the difference between yellow and blue, contrast becomes a key device in your visual toolbox to control how your viewers see your photographs.

Canon 40D | ISO 100 | f/6.3 @ 1/60th

The juxtaposition of the various colors in the frame not only adds vibrancy to the image, but also helps convey a sense of place.



Canon 40D | ISO 500 | f/5.6 @ 1/40th

The rich saturated color of the flower draws the viewer to the fine details of the stamen.

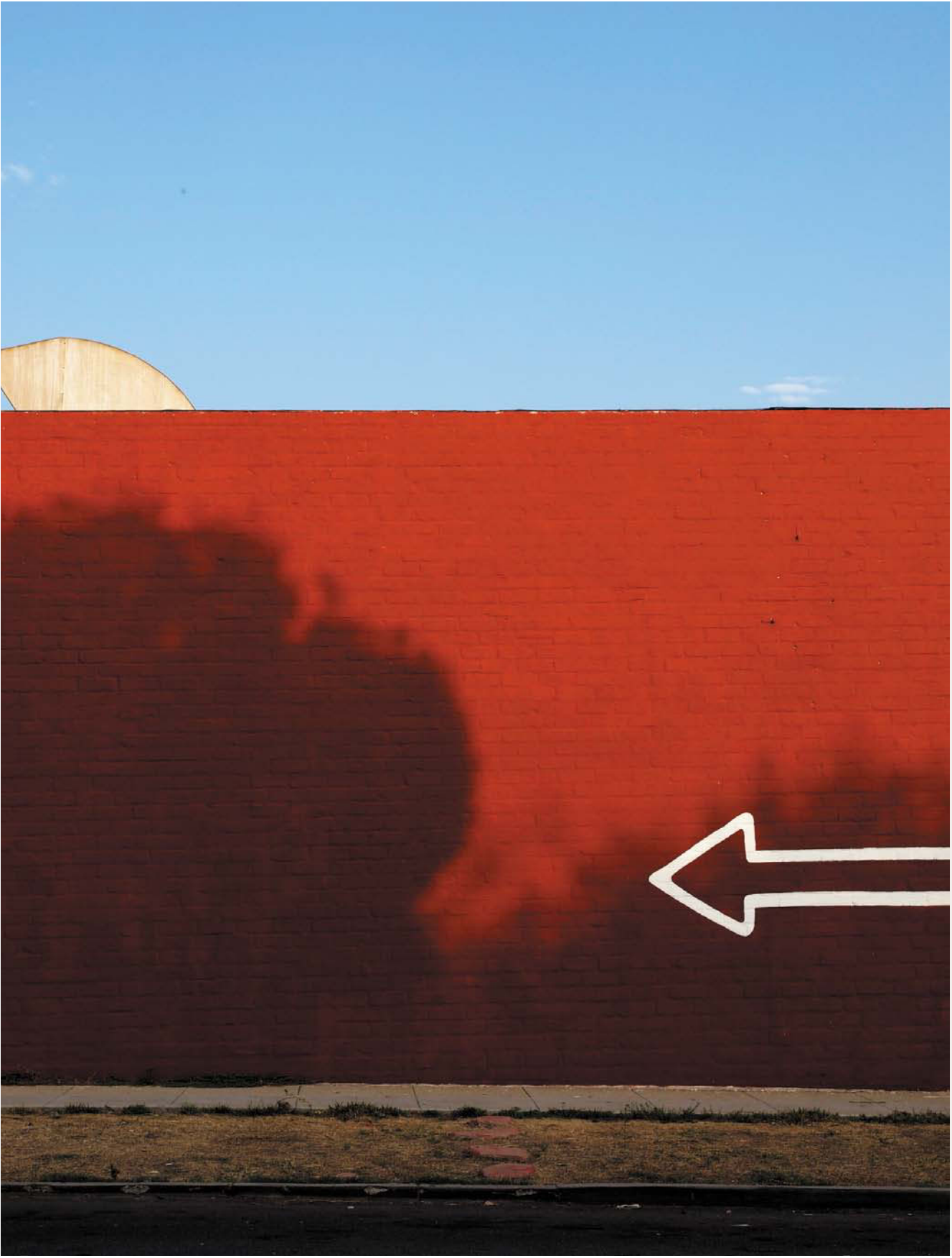
Saturation

Most people photograph primarily in color, and people respond viscerally to rich, saturated hues. Look at virtually any contemporary landscape photograph, and you'll see a wealth of images with vivid greens, blues, and reds. Our eyes respond strongly to saturation, so it's one of the key elements I use when building a photograph.

Flowers and natural scenes are favorite subjects for exploring color. This image of two flowers illustrates how the saturated yellow and red pull the eyes into the image. Not only does this photograph build on the qualities of brightness and color contrast discussed earlier, but the vibrancy of the yellow helps draw the eye to the heart of the flower.

Some colors, such as red, act like a magnet for the eyes. I was driving home when I saw this red wall with the white arrow painted on it, and knew that I had to drive around the block, get out of the car, and make the image. The energy of the red, particularly with the sunlight hitting it, seems to burst off the page like a ripe fruit. The arrow and the sky become an element of contrast, which makes the image much more interesting than if I had just composed an image of only the wall itself.

Color saturation alone doesn't make an image for me. It may for a few shots, but it becomes repetitive very quickly. It's when I use color with the idea of brightness and contrast that my images really begin to take shape.



Olympus E-5 | ISO 400 | f/8 @ 1/500th

The color red is a big visual draw. In this image, it provides context for the more graphic elements within the frame, including the bright white arrow.

OVERDOING SATURATION

One of the pitfalls of image-editing software is the ability to increase saturation of the image during post-processing. The results are sometimes oversaturated images, which—to my eye, at least—are garish and distracting. Though I enjoy the opportunity to tweak the color, I don't think it's a good idea to have the equivalent of a lead foot when it comes to boosting color saturation. I like conveying my experience with color through my use of light instead of amping it up in software. Plus, taking saturation too far may make it very difficult to produce a print that matches what you see on the monitor, because the pumped-up color you see on your screen may not be reproducible or even look good on paper.

Olympus 20D | ISO 100 | f/8 @ 1/60th

Software provides you the ability to boost saturation of colors, but be wary of taking it too far, even though it might look pleasing onscreen.

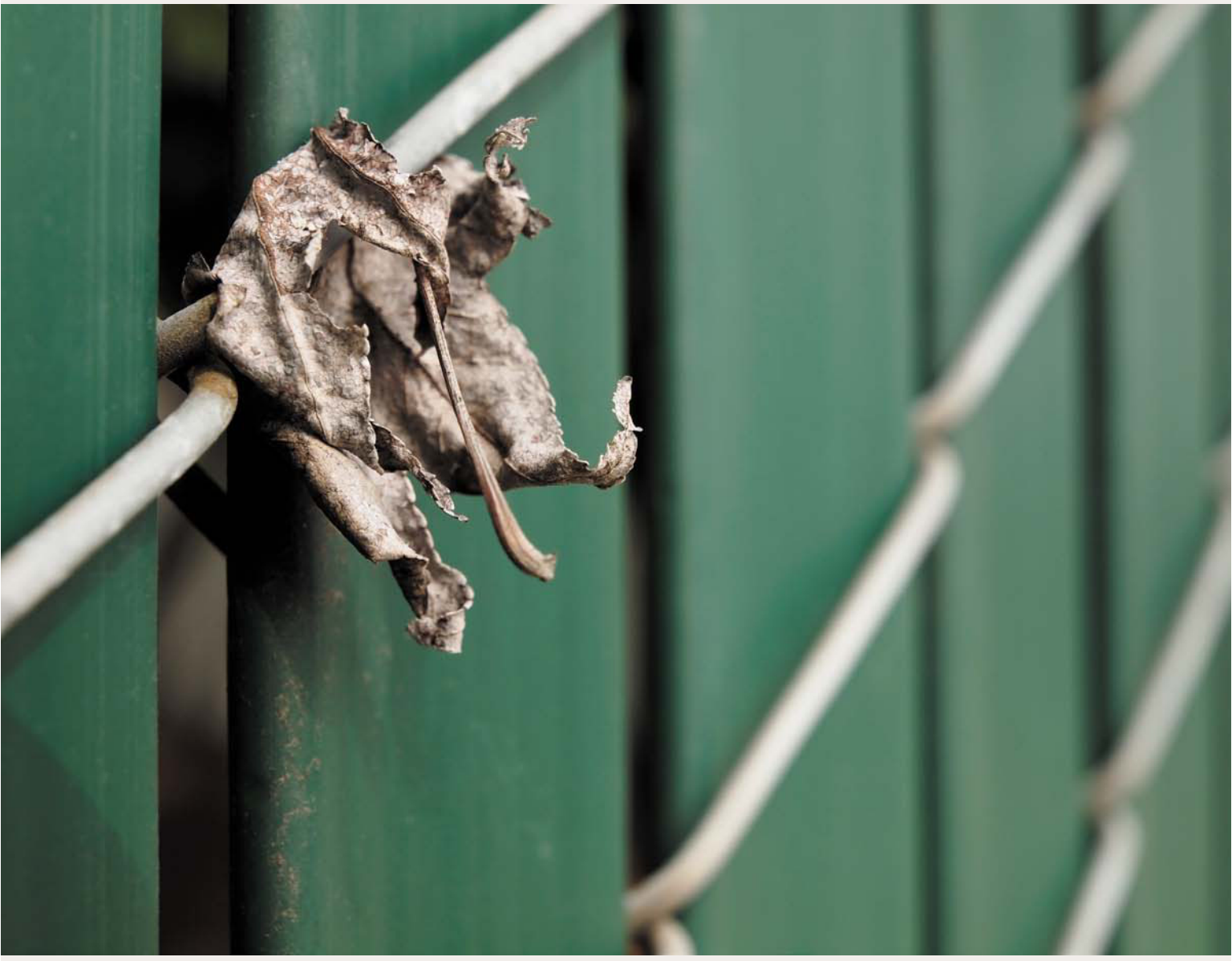
This image of a brick wall and cactus provides a perfect example of how I like to work. This same scene would've lacked the vibrancy I wanted had I shot it on an overcast day. I could've tried to increase the contrast in software, but instead I waited for the sun to break and created a more dramatic and satisfying image. The result of the direct sunlight on the scene not only boosts the vibrancy of the greens and reds, but also helps create contrast, which provides the image some depth as well as reveals the rich texture of the wall and the cactus.

> **TIP:** One of the best ways to naturally get saturated color is to photograph in brighter light. It doesn't have to be direct sunlight—in fact, that may sometimes introduce undesired shadows and contrast. Instead, it may simply be a brighter area of shade as opposed to a deeper area of shade.

Whenever I'm photographing a landscape or looking at a field of flowers, I'm looking first for where the light is falling, because that's often where I'll enjoy the best rendering of color. Ideal lighting isn't always possible, but unless I know to look for it, I'll simply photograph a subject as I found it, and the resulting photograph may not adequately convey what I felt when I made the image. Light, as always, is the key.

Olympus E-5 | ISO 400 | f/8 @ 1/400th

The saturation of color is largely influenced by the quality of light. By allowing time for the sun to break through the clouds, I produced an image that builds on the great colors.



Sharpness

Photographers are obsessed with sharpness. We want our lenses to be sharp so that they can produce images that look crisp and vivid. When photographers speak of optical sharpness, they're primarily speaking of resolution, the ability of the lens and camera to take the light passing through them and resolve the scene with as much detail as physically possible, especially fine details.

When it comes to building a photographic composition, the assessment of sharpness is integrally related to the point of focus. Our eyes and brain assume that the sharpest area of the photograph is where we're supposed to be looking. Sharpness is one of the first ways I came to understand how to read a photograph.

With this image of a chain-link fence, I use focus to draw the viewer's attention to the dry leaf. The relative sharpness of the leaf as compared to the rest of the frame conveys to the viewer that this part of the image is where I want them to look first. Though the subject is not in the center of the frame, the point of focus and the sharpness of the leaf control the experience of the photograph. If the image had been focused farther down on the fence, the leaf would have suddenly become secondary.

The contrast between the sharp area of the frame and the out-of-focus area is a result of depth of field, which is the perceived area of acceptable sharpness. In a photograph, I have my point of focus, which is hopefully the sharpest element of the shot. From this focus point, the scene will get progressively out of focus. But depending on my choice of aperture, the focal length, and the camera-to-subject distance, I can control how much of the area in front of and behind the subject appears relatively sharp.

Olympus E-5 | ISO 200 | f/5.6 @ 1/400th

Pinpoint focusing and the use of a limited depth of field allows me to guide the viewer's attention to the leaf, which serves as the anchor of the image.

In a portrait such as this one of a young girl, I used a shallow depth of field to keep her sharp but throw the rest of the diner out of focus. I targeted her eyes for detecting focus and used a moderate aperture to keep her sharp but the rest of the restaurant blurred. The contrast between her sharpness and the blurred background help make her the anchor of the image.

The contrast between sharp and blur is one of the more creative choices I can make when photographing anything from a person to a flower petal. Focus is critical, especially when working with a limited depth of field, but when done well, it can produce an excellent result.

Landscape photographers often want a deep depth of field, which result in both the foreground and background appearing sharp. This is often achieved by using a wide-angle lens and relatively small aperture. Focus is still critical, but the choice of aperture, focal length, and lens-to-subject distance help to deliver an image on which fine detail appears sharp throughout the frame.

The deep depth of field of a sand dune in Death Valley allows for the patterns to be sharply resolved both in the foreground and in the background. The overall scene was important to me as a photographer, so I wanted every bit of the frame to appear sharp. I built the image on the repeating pattern.

Olympus E-5 | ISO 400 | f/4.5 @ 1/25th

A limited depth of field allows me to focus the viewer's attention on the girl, while throwing the distracting elements out of focus.

Canon 40D | ISO 200 | f/11 @ 1/200th

The patterns created by the wind in Death Valley result in a repetition of graphic lines that that are clearly defined by the use of a deep depth of field.

Olympus E-5 | ISO 200 | f/10 @ 1/80th

The repeating lines of the palm frond serve as the heart of the image, building on sharpness, saturation, and contrast.

Pattern

Human beings respond to repetition and patterns. This is such a big part of how we see that many games are built around our ability and desire to discern patterns. Discerning patterns is no less important in a photograph.

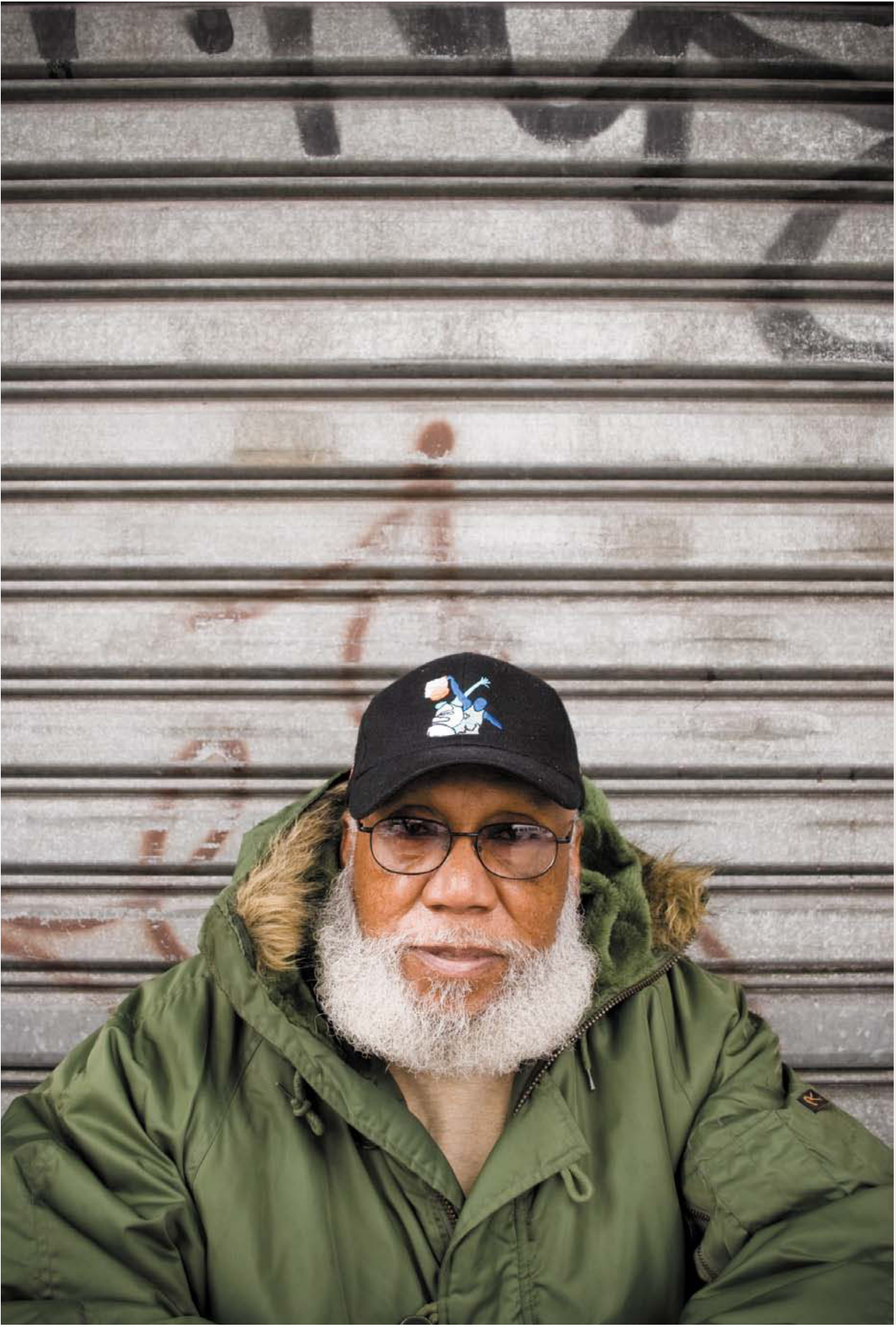
Pattern serves as a strong visual draw, which makes it an important element not only for controlling the viewer experience but also for the subject matter of a photograph.

The image of a backlit palm frond is an exploration of a repeating pattern made all the more interesting because of the quality of light, saturated color, sharpness, and area of contrast at the bottom of the frame. The pattern is the heart of the image for me, and it's what I believe many people respond to when they look at this image.

Repeating lines, shapes, colors, and textures can introduce a visual rhythm to a photograph, which works beautifully whether the pattern is the main focus or a secondary element in the photograph.

In this photograph of my father, shot in the streets of New York City, I used the repeating horizontal lines of the security door to serve as a backdrop. I found that the repeating pattern made for a more interesting background than a uniform gray color would have, and it also helped lead the eye to the bottom of the frame.

This image, as with many others you'll see in this book, builds on the pattern as a strong graphic, which can either be used as the subject of the photograph or be used to help guide the eye to the true subject of the image.



Combining Elements

Each of these visual draws—brightness, contrast, saturation, sharpness, and pattern—can be used in conjunction with each other to produce a successful photograph. Not every image has to possess all these qualities, but you should assess a subject or scene for these qualities whenever you raise the camera to your eye.

I build my compositions based on these qualities. Because I know exactly where I want my viewer to begin experiencing my images, I use the brightness and contrast of the light to determine how I can render color or pattern. By choosing my point of focus and controlling depth of field, I can control how much of the image appears sharp or soft. It's this control over everything that's happening in my frame that allows me to make an image that I feel is successful.

This process doesn't come automatically for me. The images you see in this book are a result of exploration ... and a lot of failed photographs. I don't merely make one image and walk away—unless I'm being chased. Instead, I make several photographs, refining my composition, focal length, and exposure until I have an image that I hope meets my objective for the photograph.

Nikon D60 | ISO 400 | f/5.6 @ 1/100th

Repeating patterns don't have to be the subject of the photograph—they can be used as an accent, which guides the viewer's eye through the image.

My ability to produce a successful image comes from exhausting all the possibilities before moving on. When I see brightness, contrast, saturation, sharpness, and pattern, I have the *beginning* of a photograph and nothing more. It's only when I consider how each of those elements informs the photograph, and fully explore all the possibilities, that I move from merely *taking* a photograph to *making* a photograph.

The Risk of Competition

In an ideal world, my subject would possess all the key visual draws, but if that world existed I would also have a full head of hair and own the perfect camera bag.

The reality of a photograph, however, is that the subject often doesn't possess all those qualities and that some other elements in the scene do. This is when a secondary element in the frame may compete with the subject for the viewer's attention.

This photograph of a beautiful waitress I met in Seattle has most of the qualities that I want in a photograph. She's illuminated by a beautiful quality of reflected light, which helps make her brighter than most of the alleyway behind her. The contrast between her shirt and vest helps draw the viewer's eyes to her. Her skin and hair have a nice saturated color, which appears both pleasing and warm. Finally, she's the sharpest element in the frame.

Olympus E-3 | ISO 400 | f/4 @ 1/250th

Staying aware of everything that's happening in your frame helps you compensate when distracting elements intrude into the frame.

The bright area in the upper-right corner is a distraction, leaving the viewer's eye to wander a bit. Ideally, I wouldn't want that brightness to be there at all, but I only had a limited time to work with her and I had to make do. The image still works for me despite that area of brightness, because I had the benefit of a subject who had all those qualities of brightness, contrast, sharpness, and saturation.

If secondary elements in the background had possessed more of those five key qualities, the image would have been weakened and the viewer's eye would have wandered all over the frame.

This image of a bride being helped by her mother into her wedding dress includes a bright window, which could prove a big distraction. Yet, I used contrast, saturation, and sharpness to build a composition that flows between the young woman, the gown, and her mother. So, though there may be some distracting elements in the background, the building of the image on the principle of the five visual draws helped me to create a composition that is visually pleasing and captures the story of that special moment.

More often than not, it's the presence of distracting elements that have one or more of those five visual draws that sabotages an image, even if it's well exposed and sharp. The viewers don't know what to pay attention to—they're pulled in different directions simultaneously.

Olympus E-5 | ISO 1600 | f/3.5 @ 1/50th

Though we can't control everything that appears in the frame, the ability to use the five visual draws helps to produce an image that still works and has impact.

This portrait that I made of a man I met at an African Marketplace festival is an example of an image that could have been so much better. It still frustrates me that I didn't come away with a better image. Though the subject is striking and sharp, distractions abound, including the bright area in the upper left, the saturated red of the tent, and the worst element, the green water hose that contrasts against the black fence. Though the man is a great subject, those elements repeatedly draw the eye away from him, weakening the overall impact of the image.

I was aware of those elements when I made the photograph, but because I didn't want to impose on my subject, I didn't walk him toward an area where I might have found a cleaner, simpler background. I was rushing myself, and the image suffered as a consequence.

Canon 1D Mark II | ISO 200 | f/5 @ 1/100th

Distracting elements in the background that are brighter have more contrast, and saturation draws the viewer's attention away from the main subject and weakens the photograph.

REMEMBER: If taking great pictures were easy, everybody would do it. The fun and the challenge lie in wrangling with the light and these various elements to make the photograph happen. It's certainly frustrating when I miss the mark, but there's nothing like those moments when I've nailed it. It's for these moments that I pick up the camera and am willing to fall on my face. Failing is part of the process.

An important part of the process is not only going out to shoot, but also analyzing the images you've already produced, trying to discern why some of them work and why others don't. Browse through your archive of images, especially your near misses, and using the idea of the five visual draws, see if you can determine where things worked and where they didn't, and why.


STOP

6

Light and the Portrait

Though I've enjoyed photographing people since I picked up a camera, making good portraits hasn't always been easy. A combination of shyness, inexperience, and self-doubt made the process a challenge for me. Whether it was photographing a stranger on the street or doing a formal portrait sitting, the quality of my portraits always seemed to be lagging behind what I was doing with all my other photographic work.

It was only when I forced myself to slow down and take greater consideration of the light that I began to discover how to make these images really sing. Though the person in front of my lens was certainly important, I had to remember that all photographs—whether they're of people or a bowl of fruit—are often dependent on the quality of light and how I use and control it. When I remembered that, I was well on my way to making a good image.

My images of people are often on location on the street, in an office, or in a home. So, as a result, I'm often working with the light that exists naturally, the available light. Though I may bring flashes and reflectors to aid me in my process, it all begins with evaluating the existing light.

Depending on the light source, I have to contend with a variety of considerations, not least of which are the quantity, quality, and color of the light. I also have to think about contrast, the position of the subject relative to the light source, and how much time I have with the subject. Whether I have 30 minutes or 30 seconds makes a big difference—sometimes I have to let go of what I would *want* to do and focus on what I actually *can* do.

In this chapter, I explain how I contend with a wide variety of lighting conditions and how I use the principles I've discussed in earlier chapters to help me produce a portrait that my subject and I can be happy with.

> **TIP:** Be sure to evaluate all the images in this chapter for the five visual draws (see Chapter 5), even if I don't discuss them specifically.

Direct Sunlight

Direct sunlight is the quality of light you can expect on a bright sunny day. This quality of light, normally present in the middle of the day, creates a hard and harsh quality of light, which delivers pronounced shadows. It's not an ideal light for shooting portraits, because of the shadows it produces on the face, but it is a great light for creating graphic imagery emphasizing shapes, lines, and texture. To be used effectively, direct sunlight requires an awareness of the presence and the impact of shadows.

Canon 7D | ISO 160 | f/4 @ 1/1,250th

I used direct sunlight and the strong, direct shadows it produced to create a strong graphic element in the background and create contrast between the background and my subject.

Working with high contrast

Many photographers will tell you never to shoot a portrait under harsh and direct sunlight. They have good reason for saying that: The harsh shadows that this quality of light produces often leads to harsh, distracting shadows. If you've photographed someone in the middle of the day, you've no doubt ended up with some images with pronounced shadows beneath the brow,

nose, and chin, which aren't exactly flattering. If your subject is wearing a hat, you lose any detail in the eyes to shadow. These aren't the kinds of images that are going to grace the cover of a magazine.

Even so, I don't think you should entirely avoid direct sunlight. I actually like the presence of shadows, and I like to use it to great effect. As long as I'm aware of where the shadows are, and as long as the shadows are where I want them to be, I'm in control of what's happening and how the image will ultimately look.

When I invited my friend, professional magician Ben Kemper, to be my subject, I knew that I wanted to use strong shadows and high contrast in the image. So, we roamed around following where the late afternoon light was falling and creating those strong graphic lines that I was hoping to use to complement his dark suit and hat. We found it in the green rear wall of a local business. The presence of the shadows created an interesting graphic pattern that gelled well with what was happening with his hat and suit.

Because of his dark suit, I knew to double-check my exposure—I wanted to make sure that suit appeared black, not gray. Thankfully, the multi-pattern metering of the camera was handling the exposure well and didn't require any compensation on my part.

I already had a great subject with Ben. So, my biggest concern was finding the best quality of light and background with which to showcase him. Once I found this, I was able to focus on him and his appearance in my photograph, including the careful placement of the card in his hand.

Controlling contrast

I photographed mystery author Gar Anthony Haywood as part of an ongoing series of portraits on writers and poets. As with all my other subjects, I visited him at his home and used only available light and the environment he normally exists in to make my portrait.

The challenge was not only that I was working with a completely new subject whom I had never photographed before, but also that I was in an environment that I was completely unfamiliar with. Magnify that with the reality that most of these portraits were being made within only 30 to 45 minutes (and, in one case, only 10 minutes) and you can imagine that I had to think fast and sure.

As Gar gave me a tour of his property, I saw a strong graphic pattern being produced by the direct sunlight on the wall. I immediately knew that I wanted to use it as the setting for a photograph.

Because of the direct sunlight, I didn't have any concern about having enough light. I was easily able to work with the shutter speed/aperture combination that my light meter was giving me.

The big challenge I faced was that the harsh sunlight would result in Gar squinting, which would ruin the image. I could've pulled him completely into the shade to eliminate that as a problem, but then I would've lost the great graphic pattern that had drawn my attention in the first place.

The solution was to use my Photoflex MultiDisc 5'n1 reflector, which includes a *scrim* (a translucent material that allows light to pass through it, but softens the light, thus reducing its harshness). Mounting the scrim on a control arm and a light stand, I carefully positioned it between the sun and my subject. This allowed me to maintain the presence of the shadow but also make it a much more comfortable situation for him.

The resulting shadows on the wall and his body provide the image a sense of depth and pop, which would've been lost completely if I'd moved him into the shade. Though open shade is a great location for a portrait, I like including shadows because I know the contrast can serve as a big visual draw.

Open Shade

Open shade has a soft quality of light, which is very different from the harshness of direct sunlight. Shadows are much more diffused, creating images with much less contrast. Open shade is a popular light for portrait and close-up photography. Colors appear more muted than the saturated hue provided by direct sunlight, but when handled well, open shade can help reveal the subtle gradations of color that exist with a subject such as a flower. Open shade helps a photographer to capture a full range of tones, with less concern about losing details in the highlight or shadows.

Recognizing the benefit of soft light

One of the most beautiful types of light to work with for available-light portraiture is open shade. I like areas of shade that are benefiting from some reflected light from a source such as a large white wall or the windows of a skyscraper across the street. When I can find these scenes, they help address the problem of strong shadows faced under direct sunlight, but with the added benefit of a naturally occurring reflector.

Nikon D100 | ISO 200 | f/5.6 @ 1/320th

By using a scrim between the sun and my subject, I was able to soften the light illuminating him but still retain the strong shadows produced on the wall.

When I photographed this street-corner evangelist, I had the benefit of the shade, which was already providing me an even source of illumination for the entire scene. However, I also had light being reflected across the street by the windows of an office building. This increased the level of illumination so that I didn't need to increase my ISO above 500, and I could still maintain a good shutter speed/aperture combination. By making sure to set my white balance for shade, I was able to ensure excellent color accuracy for all the varying hues before my lens.

Though the light here is soft and even, this doesn't mean that there are no shadows present. The shadows are there, but they don't have the high contrast that would occur with direct sunlight. The contrast range is much narrower, but the shadows still help reveal shape and texture.

This is a good example of a portrait that doesn't show a subject's face. What drew me were the roughness of his hands and the paint that peppered his clothing. This helped tell the story of what he does for a living.

The light helps reveal the full detail of color and tones that existed and also reduced the chance that his white shirt might be overexposed.

Canon 40D | ISO 500 | f/5.6 @ 1/320th

Open shade combined with some reflected light from the window of a nearby office window provided me a great source of illumination of this image of an evangelist's hands.

Compensating for shade

Though shade provides a beautiful soft quality of illumination, it does reduce how much light I have to work with. So, I have to automatically increase my ISO and double-check my shutter speed to make sure that my image is not only well exposed but also sharp.

When I discovered this caballero in Arizona, I knew immediately that I wanted to photograph him. Not only did he have a great face and hat, but the quality of the light was amazing. He was just within the shaded area of the bar, but there was light being reflected from the outside and through a doorway, which made making the image as simple as asking him to pose for me.

I had to increase my ISO to 800 and set my lens wide open to be able to have a shutter speed at which I could still reliably handhold the camera and expect a sharp photograph. I manually used the AF sensor closest to his eyes and made a series of images in rapid succession with the camera in the continuous drive mode.

Though I had less than a minute with my subject, my awareness of the light and the settings of the camera allowed me to pull a sharp, well-exposed image. This freed me to create a composition that consists of all those qualities that help draw the viewer in: focus, contrast, saturation, and sharpness. The viewer is guided directly to the caballero's face and to the intensity of his gaze.

I had just walked out from an area of bright, harsh sunlight, and if I had attempted to make the image using an ISO of 100, I would've shot the image at a shutter speed that was too slow and the image would've been irreparably soft. It was only my knowledge of where I was starting off with my settings that allowed me to make the necessary changes in seconds and focus my attention on my subject.

Canon 20D | ISO 800 | f/2.8 @ 1/60th

The light being reflected from outside served as a perfect additional source of illumination in this area for open shade, which helped me make this striking portrait.

Olympus E-3 | ISO 100 | f/4 @ 1/125th

The open shade provided me an even quality of illumination, which was perfectly suited for these young children taking a bath together in Mexico.

Getting the color right

Besides the drop in the quantity of light in open shade, color accuracy becomes incredibly important. When I've used auto white balance in the past, images produced in open shade have had a slight bluish color cast. This is a result of the cooler color temperature but also the camera's inability to consistently nail the color. This is a big reason why I commonly prefer to use a white preset or, if time allows, a custom white balance. This gives me a much better chance of getting accurate color, which is especially important with respect to skin tones.

After getting the permission of these children's mother, I began to photograph them as they bathed in a small metal tub. At first, I was afraid that they would be distracted by my presence, but thankfully they weren't—except for the oldest sibling, who had an intense and focused gaze.

I had the benefit of reflected light behind me, which allowed me to use a low ISO and good combination of aperture and shutter speed. I crouched down and began making my images, carefully refining the composition and watching the children's reaction and interaction with each other and me. I had shot over 24 frames, when the girl raised her hand to her chest. With that gesture, I knew that I had something special. I continued shooting, but in my mind I knew I already had my image.

The fact that I didn't have to think about my camera freed me to focus my complete attention on the expressions and body language of the children, and be ready for that one telling gesture, which helps makes this image one of my favorites.

Window Light

Window light offers a complementary blend of the strengths of direct sunlight and open shade. Its directional quality helps produce shadows that can add depth and texture to a subject, while at the same time delivering a soft quality of light, which is ideal for many subjects, particularly people. Because the light is often coming from a single direction, you have the ability to create dramatically different looks, largely by changing the placement of the subject relative to the window.

Identifying the benefit of directional light

Next to open shade, I love using window light for portraits. It's the kind of light that has some of the qualities of direct sunlight (brightness and direction) and open shade (diffusion). It's a classic light source for photographers shopping for a studio—amazing images can be produced easily without the need to set up strobes and modifiers.

When I made this portrait of writer Lisa Teasley, I had the benefit of a wall of large bay windows, which provided me the perfect source of illumination. Not only did I have an abundance of light to work with, but the softness of the illumination wrapped across her features and the red leather chair she was sitting in.

The quality of the light really brings out the great colors of her skin, the chair, and her blouse and, of course, her great hair. The color contrast between the blue (a cool color) contrasts with the warmer surrounding tones, adding vibrancy to the image, which helps draw the viewer in.

Like most of the images I produced for this series of portraits, I used a 50mm f/1.8 lens, which not only is a fast lens, but also can serve as a great portrait lens. The benefit of this lens is that, even with a moderate shutter speed, I can expect to be able to reliably handhold the camera/lens combination and get tack-sharp results.

Though I could've photographed anywhere, it was the light that helped guide me to the best places to make portraits of her that day. Other locations might have offered some interesting elements in the background, but if the quality of light hadn't been there, I would've been forced to shoot under less-than-ideal light.

Canon 20D | ISO 400 | f/3.2 @ 1/125th

Light from a large window provided me a large source of illumination, which was not only bright but also soft, resulting in a striking portrait of author Lisa Teasley.

Reflecting Light

Finding the light and becoming aware of the shadows is always an important part of my photographic process, but the next step often involves how I want to handle the contrast. If I want to reveal shadow detail, but the contrast is higher than the camera's ability to capture, I consider using specific tools to compress this contrast without losing detail in the highlights. The best tool in my arsenal for this is often a reflector.

Using a reflector

Contrast and the presence of shadows is always a big consideration for my portraits. Depending on how I visualize the image, I can use the hard shadows to produce impact and a strong mood, or I can work for softer shadows for a softer look. One of the most effective ways of doing the latter is by using a reflector.

The reflector can be anything from a piece of white foam core to a professional photo reflector. Whichever I choose or have access to, they serve the same purpose: reflecting light and increasing illumination in areas of shadow.

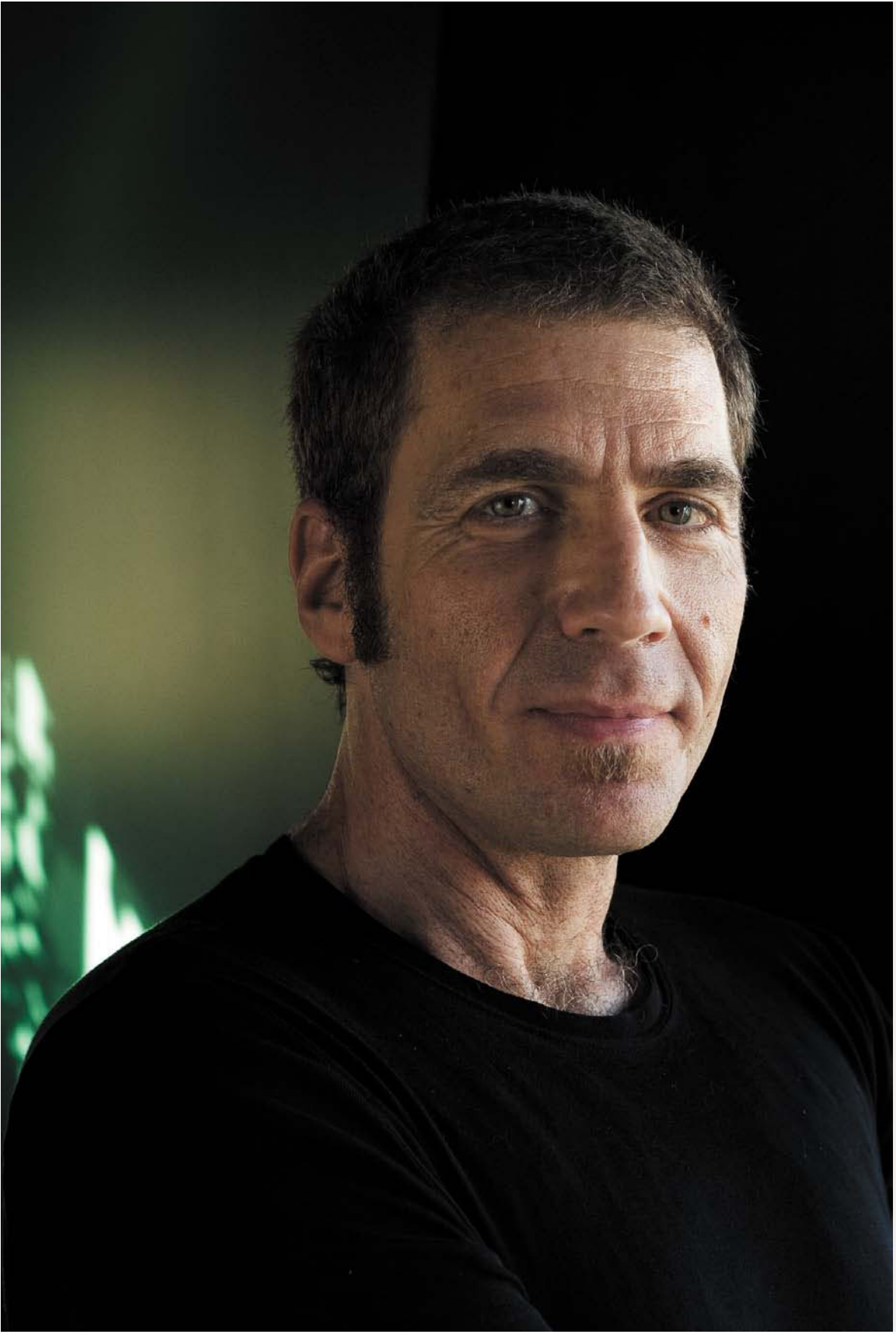
I used the late afternoon light to photograph Molly Orr while visiting Seattle. For this particular shot, I wanted to position the sun slightly behind her to get that lovely light in the hair. However, that would've left her face in deep shadow. The solution was a reflector, which caught that warm sunlight and cast it back across her face. This increased the detail on her face as well as produced a catch light in the eyes.

> **TIP:** To use a reflector effectively, practice a technique called feathering, which means that instead of allowing the full amount of light to be reflected on the subject, you pull back on it a bit. This allows some, but not all, of the light to illuminate the subject, reducing the intensity and the harshness of the light and delivering a more subtle look.

We spent most of our time chasing the light this late afternoon. This image is a good example of how, by looking for the light first, I was able to create a situation in which I could create a beautiful portrait of a young, vibrant girl.

Olympus E-3 | ISO 250 | f/4 @ 1/640th

By using a reflector, I was able to reveal the detail on the shadow side of her face while still taking advantage of the warm, bright light behind her.



Working with a reflector and window light

I have to admit a good amount of anxiety while photographing screenwriter and author Jerry Stahl. I was hoping to create more than just a flattering portrait—I wanted to make an image that might reflect some of the challenges he had faced and come through in his life. The first part of the shoot was delivering okay results, but I knew that it wasn't what I was hoping for.

When I suggested we move downstairs to a den area, he explained that there was very little down there. When I first walked into the space, it was dark and I was ready to admit defeat and return upstairs. But I moved a curtain that revealed a large sliding door, and I saw the light and how it cast a cool pattern on the wall—that's when I knew I might have something.

I positioned him next to the window and loved how the light fell on him and how the light on the wall created an area of separation between him and the background. However, the right side of his face was deep in shadow. It was the use of a large white reflector placed just out of frame that allowed the filling in the shadows and producing the image that I was looking for.

When I'm working in a scene that includes a lot of shadow, I have to be careful about the subject bleeding into the background. This is where a reflector allows me to either illuminate the subject or illuminate the background to create that sense of separation.

I could've positioned my subject so that he was facing the window, which would've provided more even illumination across his face. But it was the presence of the shadows that helped set the tone that I wanted for the photograph—and resulted in one of my favorite images from the series.

Canon 20D | ISO 400 | f/4 @ 1/100th

The high-contrast light created directional light passing through the sliding glass doors. I remedied this with my effective use of the reflector to fill in the shadows.

Light and Flash

Though I primarily use available light, sometimes a reflector isn't a practical solution. For such situations, the camera's built-in flash or an auxiliary flash is the best tool for the job of controlling contrast. Though many people are intimidated by flash, today's technology often makes using a flash as easy as turning it on and taking the photograph. It takes practice to refine the look to your personal creative taste, but flash is a worthwhile tool to learn.

Flash technique is beyond the scope of this book, but good sources for learning more about flash are Scott Kelby's *The Digital Photography Book* and Zeke Kamm's *Strobist Photo Trade Secrets, Volume 1: Expert Lighting Techniques* and *Strobist Photo Trade Secrets, Volume 2: Portrait Lighting Techniques*, all published by Peachpit Press.

Using fill flash to control contrast

Though I primarily use available light, this doesn't mean that I won't or don't use flash. Electronic flash—whether from a built-in flash or an external one—provides a great tool for controlling contrast and revealing detail in the shadows. Though I prefer to use a reflector, that's not always a convenient choice, as was the case when I photographed this man and his horse.

I was in a van traveling with a group of photographers when I glimpsed this man washing his horse. Unfortunately, I wasn't able to get out of the van and run down the road in time. He was already walking out of the washing area, but I didn't want to miss the opportunity to make a photograph.

The background was too distracting, so I decided to shoot them from below, using the sky as the backdrop. However, the bright sky resulted in the faces of both the horse and the man being thrown into deep shadow. So, I simply attached my auxiliary flash and allowed it to provide the fill light I needed.

The use of the flash limits my top shutter speed—normally, I can't exceed the top flash sync speed, which in this case was 1/250th second. This resulted in my having to work with a very small aperture. If I hadn't been so close to both the man and his horse, this might have posed a problem, because the small aperture limited the effective range of the flash, but in this case it was perfect.

Canon 40D | ISO 100 | f/11 @ 1/125th

The bright sky behind the subject would've easily resulted in both of them being rendered as silhouettes, but the flash retains detail in the shadows.

The through-the-lens (TTL) metering systems of today's camera make using flash as easy as turning it on and firing the camera. If I want to fine-tune the flash output, I can do this easily by using the flash compensation feature of either the camera or the flash. Flash becomes a really important tool for me in my work, especially when facing such big lighting challenges.

Bringing out color with flash

The choice to use flash doesn't always have to be about controlling contrast. Sometimes it's about revealing color and creating a look that the ambient light is just not providing.

My first images of this Mexican folklorica dancer used the open shade light, which often provides a great source of illumination. However, I thought the great colors of her skin and costume would appear too muted in the final photograph. So, I turned on my flash and tweaked the exposure so that I would get just the right amount of light on her.

Shooting in shade or even on a cloudy day provides great even light, but often colors appear duller than they do when they're being hit by direct light, which is why I consider using flash or a reflector to target my subject and make those colors pop.

In this case, the flash provides much better color than the ambient light alone would've provided.

My comfort level with the flash lies not only with the advanced technology built in to the camera, but with my years of practicing and playing around with it. I've found flash to be an important and effective tool for many of the photographic challenges that I face. Though I always prefer naturally occurring light, if I need a flash and I have one, it automatically becomes "available" light to me, because it is.

When I'm photographing people, it's easy to get so caught up with the subject that I forget to pay attention to the light and the background or, even worse, allow my own nervousness to get the better of me and make me rush. I find that when I take my time and carefully consider the light and how I want to use it, I'm better able to produce a more successful image.

Nikon D70 | ISO 100 | f/6.3 @ 1/160th

Though the existing open shade would've provided a good exposure, it's the flash that provided me the ability to get saturated, strong colors that favor the subject.

7

Light and the Small Details

I see small details around me, details that I often take for granted. However, when I have a camera in my hand those very same details suddenly provide the material for some interesting and beautiful photographs. These images are among the more satisfying images that I make because they provide me the opportunity to create something extraordinary from the mundane.

Often, the light not only leads me to these subjects but also elevates these elements into something beautiful. When I'm successful, these images are about the interaction of light with the objects and not merely documents of the objects themselves.

When many photographers think about close-up photography, they think it means macro images of flowers and insects. But for me, close-up photography is about so much more. Getting in close to the small details of the world reveals the commonplace in a special way, especially when I'm working the light.

It's a Small World

Whether it's nature or the man-made world, I'm responding to details of texture, color, shape, or line. It's not enough for me to make an image of a pretty flower. Such images quickly become redundant and boring. It's really only when I carefully examine the flower and think specifically about what I'm responding to that I begin to discover a way to create a photograph that expresses my personal experience of that flower at that particular moment.

With the image of this flower, I was responding to the repeating pattern that rose from its heart and flared out like some beautiful starburst. By using a 60mm macro lens, I was able to get in tight enough to fill the frame with the elongated petals. The diffused light was a result of an overcast day providing me a soft source of illumination. However, it still offered me the presence of shadows, which helped define the petals and create a level of contrast that helps draw the viewer to the center of the frame.

This image for me is more than just another picture of a pretty flower—it's an exploration of color, shape, and pattern. Knowing what I was exploring at the moment of exposure helped me to make a composition that emphasized that and allowed me to eliminate any distracting elements that would've taken away from that message.

It's still an image of a flower, but my understanding of what I was responding to helped me to use the light, the camera, and the lens to convey that experience with a single image, which is what I'm always trying to achieve.

Canon 40D | ISO 100 | f/25 @ 1/6th

A macro lens, beautiful light, and an understanding of what I was responding to helped me to make an effective image of this flower.

I might normally not think of tires as being an interesting subject for a photograph, but when I saw this stack of tires while walking in the Bronx, I knew that I had the potential for an interesting photograph. I didn't just see a stack of tires—I saw how the morning sun revealed the pattern of the tread. It was the light as well as the resulting shadows that revealed the tires as something more than a stack of rubber.

Because I knew I was being lured into the scene by the light and the details of the tire, I knew that I wanted to create a composition that included a lot of the shadows. I could've made the shot of the tread itself, which might've made for an interesting shot, but I was most interested in the presence of the shadow and the deep negative space that the shadow created. (*Negative space* is the space that exists around your subject that provides the context for the overall composition.)

The image is very minimal, with little color other than the varying gradation of black and gray and the patterns, but the light and the shadow make this a successful photograph for me.

When I leave my home for the day, camera in hand, I'm often led by the light to discover these scenes. In the past, when I wasn't aware of the light, I would otherwise not find these things interesting enough to photograph, or if I did photograph them, they would result in lackluster or bland images. Through my own awareness and use of the light, these things not only are revealed to me, but also become memorable photographs.

Nikon D60 | ISO 200 | f/9 @ 1/320th

The directional quality of light and my awareness of the presence of shadow provided me the ability to create an image that emphasizes the shape and pattern of the subject.

Direct and Diffused Sunlight

The photographing of details provides me the opportunity to create good photographs with virtually any quality of light, especially harsh, direct sunlight. Though direct sunlight, even at high noon, is a quality of light that many photographers dislike and hope to avoid, I often find that such light can be perfect to create images in which strong, deep shadows can help reveal the details of the objects or scenes that I'm choosing to photograph.

When I stopped to photograph this sculpture, I knew I could simply take an overall shot that revealed it in its environment, but that would have succeeded only in making a nice postcard image. It wouldn't have expressed what I found beautiful and interesting.

It was a bright, clear day, so the resulting light was direct and produced some strong shadows. This situation worked in my favor because I knew that the light would make the colors of the sky and the sculpture especially vibrant. I also knew that the shadows would help emphasize the color and the shape. Had I positioned myself so that the sculpture was completely front lit, I might've produced an image that contrasted the red and the blue but completely lost the shape.

Instead, I carefully positioned myself so that I was on the shadow side of the sculpture, but also took advantage of a little sliver of light that existed there. This bright triangle helped me to create a nice repetition of angular lines that existed elsewhere in the image and helped create a sense of balance to the composition. It's that little triangle of light that made the shot for me and it only happened because I was sensitive to what was happening with the light.

For me, the presence of shadow helps provide a context for the very thing about a scene that appeals to me, whether that's color, shape, or line. The shadows don't have to be pronounced and deep—they can be soft and subtle—but their presence nevertheless helps to provide a weight to the image that is sometimes missing when the light is too flat.

Olympus E-3 | ISO 100 | f/11 @ 1/125th

The awareness of light, especially the triangle of light in the shadow helps create an interesting photograph of this public sculpture.

Canon 40D | ISO 400 | f/5.6 @ 1/800th

The presence of shadows within this scene allows the shape and the colors to resonate within the frame.

It was a very similar quality of light that allowed me to make this image of lemons at a fruit stand in New York. Despite the fact that the diffused light doesn't typically produce the color vibrancy of direct sunlight, I was able to make an image where it's the relationship of the colors to each other that make the image interesting visually. Again, it's not merely about the colors themselves, but how those colors are contrasted against each other. The presence of the shadows and even the edges of the cardboard boxes not only create a partitioning of the objects, but also provide a weight and depth to them.

In each of these cases, it was the light that drew me, but it was the presence of the shadows that helped guide me to make the most of all the various elements of color, shape, line, and texture. Without that, I might've otherwise taken images that documented the appearance of these objects but didn't express how I felt when I discovered them in the first place.

The Direction of the Light

The direction from which the light is coming is a big consideration for any photograph, but especially with close-up photography. Not only does it impact how the subject appears in the photograph, but it directs me as to where I need to position myself and the camera. It's not enough to look at a potential subject, make a photograph, and walk away on the hunt for the next image. Instead, I have to think about where the light is coming from and, thus, where I need to place the camera to make the most effective photograph possible.

When I saw this beachgoer rinsing the saltwater off his body, the sun was behind me and it produced an okay photograph. I thought there might be something much more interesting if I moved to the other side of him, which I did quickly. By backlighting him, I was able to reveal the beauty of the spray of water and the shape of his leg and foot in a way that wouldn't have been possible from my original position. The first shot was a simple document of someone showering, but this image makes it much more than that. It becomes an image about the way the light passes through the droplets of water and reveals the shape of his body. The gesture of the slightly raised foot helps complete the image in a nice way for me. This is just an image of someone rinsing off in a public shower, but because I chose to utilize the light that was there, I made a photograph that expresses more than just that obvious fact.

> **REMEMBER:** Just because you discover a subject from a certain position doesn't mean that this is the position that you're obligated to make your photograph from. That's a mistake I often made early in my photographic career and one that I often see my students make. However, when you begin to have sensitivity to the light, you can make choices that improve the quality of your photographs.

Nikon D80 | ISO 100 | f/5.6 @ 1/500th

By changing my position relative to the sun, I was able to make a much more effective image of this beachgoer rinsing off his body.

Canon 20D | ISO 200 | f/9 @ 1/250th

Waiting for the light to improve allowed me to make a much more interesting image of a door, a favorite photographic subject.

Nikon D80 | ISO 200 | f/9 @ 1/125th

A change of direction revealed the light's impact on this wall in a surprising way and revealed a very photo-worthy subject.

Like many photographers, I photograph a lot of doors. There's something about the shape and color of these entryways that's always appealed to shutterbugs, myself included. So, when I saw this door, I was drawn to its strong repeating square shapes. But when I originally saw it, the door was in shade and the resulting image was flat and boring. It was only later in the day when I walked past the door again that I saw it revealed in a way that was particularly interesting.

Now there was direct light illuminating the door as well as a strong shadow casting an angular shape across it. Suddenly, that door become something far more interesting and engaging for me. It may not be the best door picture ever made, but for me the creation of the photograph became that much more interesting and fun because I had some light to play with.

When I first walked past this wall, I was walking east, the sun behind me. It was only when I was walking back west that the pattern on the wall was revealed to me. The raised diamond shape had appeared completely flat to me when I had walked past it earlier, but on my way back, the shadows cast by the sunlight were revealed to me and so was the extraordinary pattern. This experience taught me to try moving 180 degrees when possible, to fully explore the potential of the relationship between light and my subject.

Olympus E-3 | ISO 800 | f/4.5 @ 1/320th

Using backlight can help reveal the color and detail of a leaf or flower in a way not possible when it's lit from the front.

When it comes to photographing plants, backlighting provides a great opportunity for revealing the intricacies of the patterns that exist on the bodies of the leaves and flowers. The very same plant can appear different merely as a result of deciding to reposition myself relative to the light source.

This backlit leaf reveals a strong repeating diagonal pattern that adds a level of visual tension to the composition. As with many of the other images, it's the presence of the shadow that helps define that pattern and helps offset the color itself.

The backlight does more than increase the saturation of the green throughout the image—it also enhances the edge of the plant itself, creating a separation between this leaf and the out-of-focus foliage behind it. It becomes a dividing line in the composition, which helps break up the frame and create a level of tension within it.

Each of these subjects are things you encounter during the course of your life that most people would never consider for a photograph, but by simply making the choice to be aware of the light, you can reveal the beauty of the ordinary.

Canon 1D Mark II | ISO 100 | f/5.6 @ 1/200th

Direct sunlight provides a great source of illumination when I want to achieve very saturated color and emphasize shape and texture.

A Diverse Palette

One of the things that I hope to encourage all my students to do is to open themselves up to all the close-up possibilities that exist out there. Though images of flowers and insects can be extraordinary, believing that those are the only subjects worthy of this type of photography is a mistake.

The camera provides you the opportunity to emphasize one particular aspect of a larger object and reveal it in a way that most people would miss completely. There is a beauty of design that can be revealed in all aspects of our world by merely isolating it within the photographic frame.

A simple chain that was meant to serve as a barrier becomes so much more when I use the late afternoon sun to reveal its color and shape. I see chains every day and the message they typically convey is "do not pass here." Chains convey a message that this area doesn't belong to you and you'd best move on. But when I made this image, I was seeing the beauty of the chain's strong, repeating pattern and the color, which when contrasted with the yellow wall behind it created a sense of energy and beauty that I found fascinating. Though the chain existed there for a very practical purpose, I used the camera to make it serve a completely different role.

And this is what the camera often provides me and why I am often so excited about making these kind of photographs. I can always make a beautiful picture of a beautiful object, but I also can make a memorable photograph of something that most people would disregard as ugly or unimportant—and then I have something to be excited about. Photography provides me a challenge that really tests my ability to reveal the way I uniquely see the world.

CLOSE-UP TOOLS

A variety of accessories are available for effective close-up work. Though many of today's zoom lenses offer macro capability, there are tools of varying prices and potential magnification to choose from in order to achieve better results:

Close-up filters attach to the front of your existing lenses, while maintaining the metering and autofocus capability of your camera and increasing magnification. They're often made of single or dual elements, with dual-element filters often providing the best image quality.

Extension tubes are lensless tubes that are attached between the lens and the camera body. These tubes, which are available in different sizes, provide greater close-up magnification than close-up filters do. However, you can expect to lose some functionality, including autofocus and some automatic exposure modes. You can stack multiple tubes for increased magnification.

Macro lenses are lenses that are specifically designed to provide high magnification, while maintaining the full functionality of the camera. Commonly available in focal lengths of 50mm, 100mm, 200mm, or other focal lengths, these lenses are optimized for close-up work, while still performing excellently at their effective focal length.

Tripods are also an essential tool for close-up work because the higher magnification necessary for macro work also increases the impact of camera shake on the sharpness of a photograph. Though you can achieve good results with a handheld camera, more consistent results can be achieved only by using a tripod.

Though I'm often taking portraits of people facing the camera, I sometimes find an interesting portrait can be made from behind the subject, as was the case with this portrait of an older woman at a street festival.

Though I don't reveal her face in this image, the ponytail of white hair, the color and pattern of her clothing, and the tilt of her hat reveal a lot about her. And again, it's the quality of the soft, reflected light coming from just outside the performance tent that provides me the perfect source of illumination to reveal those details in this photograph.

Admittedly, I don't always find a great subject and great light simultaneously. More often than not, I find an interesting subject, but the light is not anything to write home about. The reverse is also true. I find some beautiful light and the ideal subject is not immediately obvious to me. But nevertheless, it becomes the pursuit of those combinations of light and subject that make the search more fun and engaging.

Whichever subject matter I choose to direct my lens at, I'm hoping to be able to express my own reaction to what I saw. The camera alone won't accomplish that for me, regardless of how expensive or state-of-the-art its technology is. It won't happen as a result of the latest version of Photoshop or some cool plug-in either. Those things can help, but they don't make it happen. Taking a great photograph is not just about what I see, but how I see it.

If you look around where you are right now, you'll see some very familiar objects, but by taking a step back and looking how the light reveals those common objects around you, you can begin to discover how you, and you alone, perceive them. You begin to discover your own unique way of seeing the world and begin to see how light and your camera help you to share that vision with others.

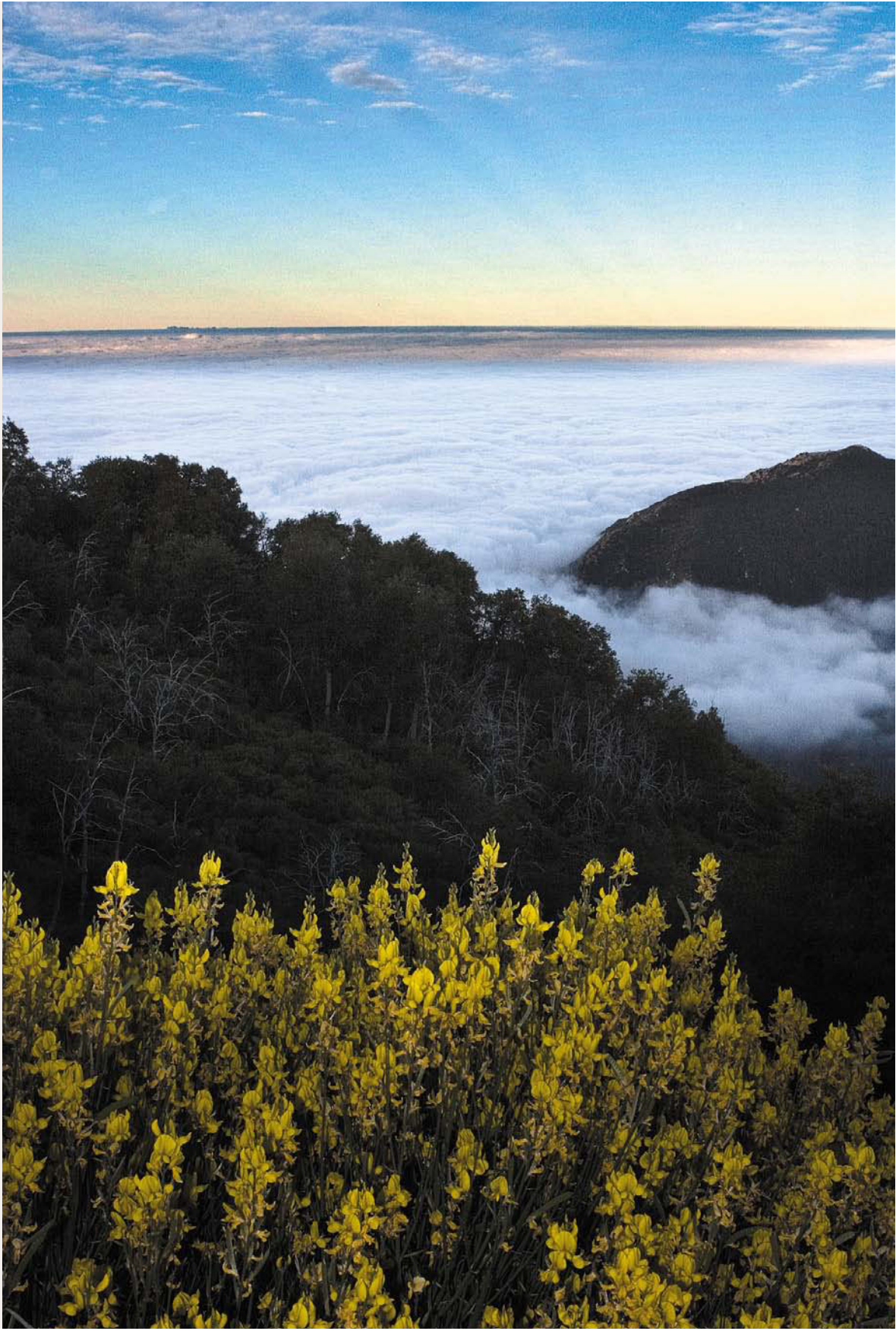
Canon 1D Mark II | ISO 100 | f/4 @ 1/125th

Creating a portrait doesn't mean just photographing a subject's face when a small telling detail such as this ponytail helps reveal the subject in a unique and interesting way.

8 *Light and the Natural Landscape*

I'm an admitted city boy at heart. So, when I first had the opportunity to venture out into the natural world as a photographer, I have to confess a certain amount of trepidation. I had spent so many years producing images in cities and towns, I wondered whether I'd be capable of producing good images in unfamiliar territory.

Though the subject matter was completely different, I soon realized that my search for imagery was still rooted in the light and its interaction with the world around me. There were still challenges in terms of how I would compose my photographs to make them effective, but as long as my starting point revolved around the light, I could begin the journey to discover good, satisfying imagery.



It's been an important lesson for me. Now I often create situations for myself to photograph unfamiliar subject matter. It forces me to consider not only what I'm photographing, but also how I'm seeing.

It's Always about the Light

The sand dunes in Death Valley are legendary and a popular photographic subject. The weight of all those classic images weighed on my mind when I got up one cold January morning to make photographs. The immensity of the dunes was overwhelming, and it would've been easy to become frustrated trying to determine exactly what to photograph, until I reminded myself to just keep it simple and go back to basics—just pay attention to the light.

It was then that I saw the shadow being cast by this growth jutting out from the sand. The early morning light cast a shadow across the repeating ripples, and it provided me the photograph that would help set the tone for the rest of my time shooting that morning.

The scene had those qualities of light and shadow, shape, and line that I often emphasize in my city photographs. And though there weren't any buildings or people or the saturated colors that inform many of my images, the interplay of light and its effects on objects influenced how I framed the scene and made the photograph.

For this image, what was essential was that the light was casting shadows. Not only was I using the branch to create an implied diagonal line within the frame, but I also revealed the repeating pattern the wind had created in the sand dunes. Had I shot with the sun behind me, that pattern would've been completely lost and the image wouldn't have been as effective.

Whenever I find myself nervous about photographing a new or unfamiliar subject (which happens more often than I care to admit), I go back to basics, which means seeing what's happening with the light first. When I start from there, the process of finding the best subject and producing a good photograph becomes far easier.

Canon Powershot G9 | ISO 100 | f/6.3 @ 1/400th

Even with a compact camera, an awareness of light and shadow can be used to create a beautiful landscape image of an iconic location in Death Valley.

The Magic Hour

The "magic hour" is a brief period of time around dawn or dusk when the sun is low on the horizon, producing a unique and beautiful look to a scene, particularly a natural one. The low position of the sun relative to the horizon has the potential to create strong graphic shadows as well as increase the saturation of colors that exist both on the ground and in the sky. The directional quality of the light also creates shadows, which reveal the shapes and textures within the landscape.

Most bad images of beautiful scenes occur during the middle of the day when the light is overhead, which produces a flat and uninteresting source of illumination. Taking advantage of the magic hour often requires photographers to get up earlier than they would like or stick around after others have left for the day.

On a morning with temperatures in the low-30s, believe me, I was tempted to stay in my sleeping bag instead of getting up and waiting for the sun to make an appearance. However, when the sun finally did appear and I began shooting, the discomfort of the morning was a quickly forgotten inconvenience.

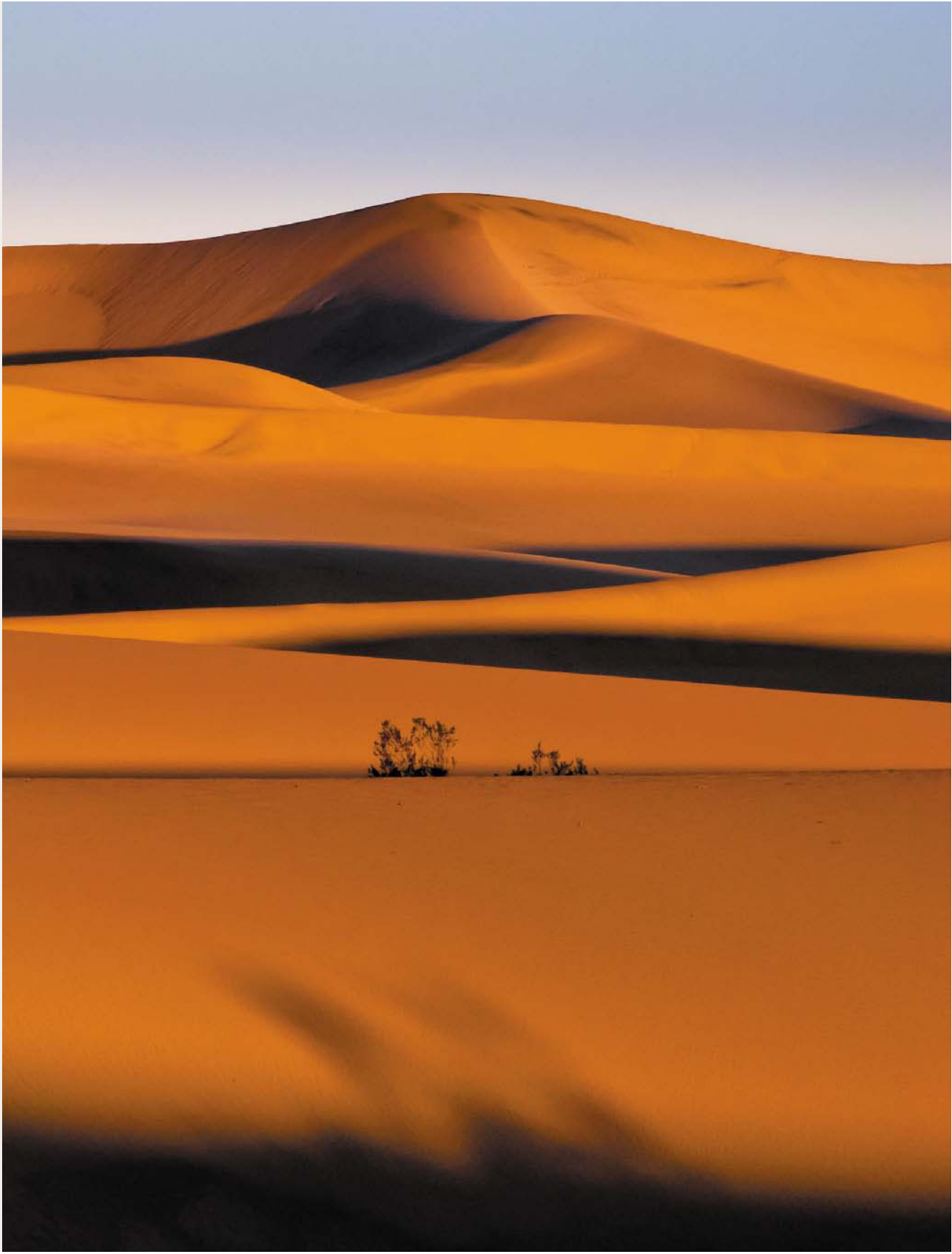
To take advantage of the directional quality of the light, I had to place my camera perpendicular to the sun itself. This allowed me to include the shadows that were being created by the rise and fall of the dunes. The undulating shapes that existed through the landscape were revealed in a particularly beautiful way.

The warm color of the light produced a beautiful hue to the dunes, which also created a color contrast against the blue sky. The same shot during the middle of the day wouldn't have worked because the overall lighting would've been flat and the shapes and lines created by the shadows would've been lost.

The exceptional quality of light can help produce great photographs even before the sun has appeared above the horizon because of the amazing way it impacts the sky.

Canon Powershot G9 | ISO 200 | f/8 @ 1/80th

By placing the camera perpendicular to the rising sun, I was able to take advantage of shadows produced by the dunes to create depth and shape to the scene.

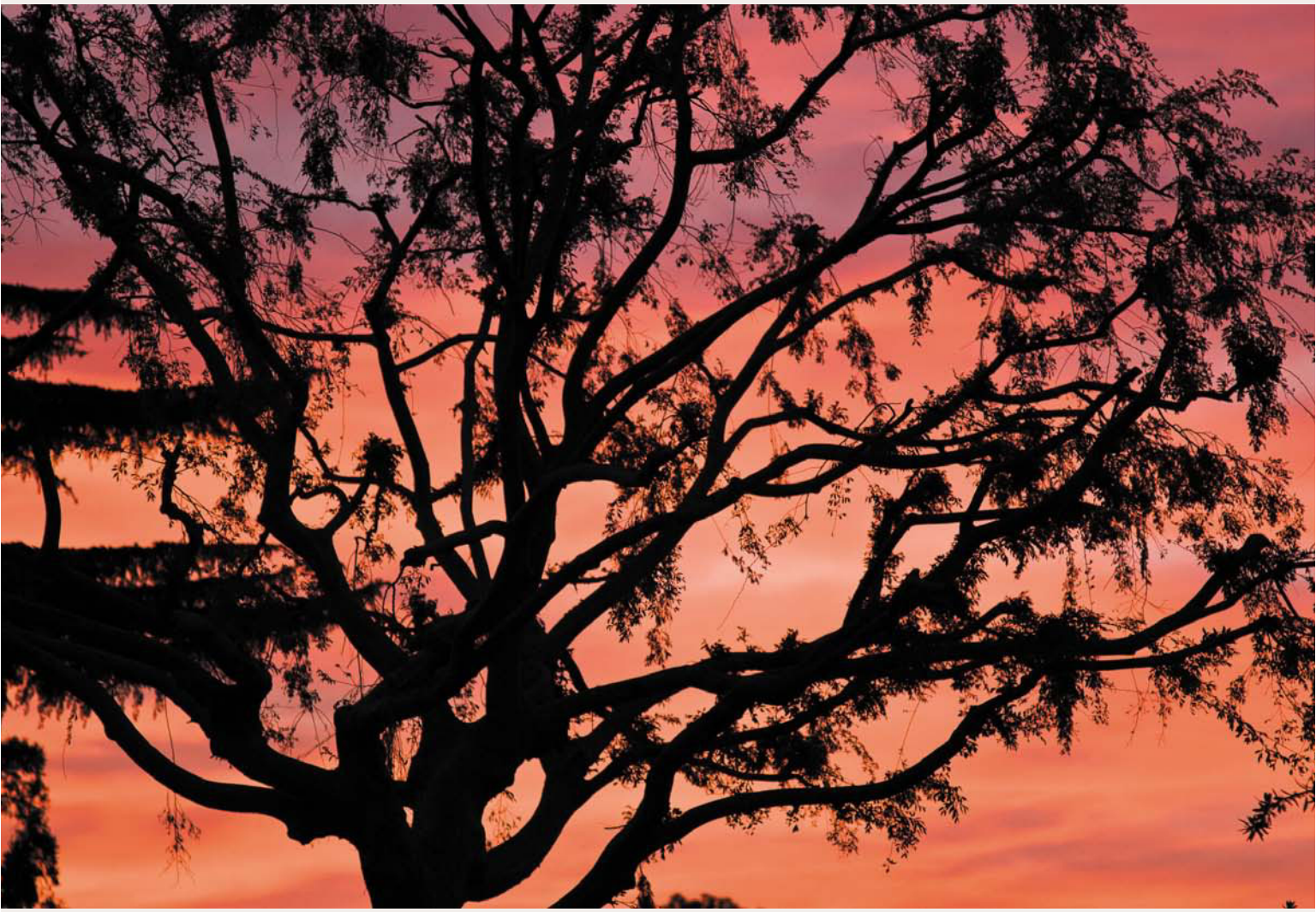


This exceptionally beautiful morning in St. Augustine, Florida, which had been threatening rain, was the perfect setting for this sunrise photograph. The clouds and sky offered vibrant saturated yellows, blues, and oranges, which were present not only in the sky but in the reflections in the water.

To get an exposure for a scene like this right, I often can depend on the camera's multi-pattern metering. However, when I want to really achieve strong, saturated color, I use center-weighted metering and meter off the sky, allowing the areas of shadow to go slightly dark. In this case, this created a silhouette of the pier, which results in a nice graphic element that guides the eye to the horizon. The shadows on the beach itself were less important to me than what was happening with the sky. So, this is a good example of when taking control of my metering helps me to shape my particular vision of the scene.

Canon 5D Mark II | ISO 100 | f/8 @ 1/250th

Using center-weighted metering, I based my exposure on the sky, allowing the pier to go dark and, thus, creating a graphic silhouette to emphasize the rich tones and colors of the scene.



Canon 20D | ISO 400 | f/4 @ 1/60th

Taking a picture of a beautiful sky often isn't enough for me, so I look for something that I can use as a graphic element and that will serve as an element of contrast in the shot.

The purposeful underexposure of shadow detail is a good way to emphasize the beauty of the saturated colors that often appear in the sky. Though I could make an image of the sky itself, I often look for strong graphic elements that I can throw into silhouette, which helps create contrast. That contrast helps to reveal the beauty of the light and color in a way that isn't immediately obvious when I fill the frame with just the sky.

Though I collect photographs of skies for composite photographs in which I merge multiple images into a single photograph, I often prefer to make an image in camera that captures the beauty that I've experienced.

AN IMPORTANT NOTE ABOUT WHITE BALANCE

I never use the Auto WB when shooting scenes during the magic hour. Instead, I choose the Sunny WB preset. In Auto WB, the camera often tries to compensate for what it perceives to be excessive warmth in the scene, which results in many of the rich, vibrant colors becoming muted and duller. I don't want the camera making that choice for me, so I use the Sunny WB preset to get the most accurate representation of what I'm seeing.

Canon 1D Mark II | ISO 200 | f/8 @ 1/350th

Magic-hour light provides dramatic illumination for plants that might otherwise be considered a lackluster subject for a photograph.

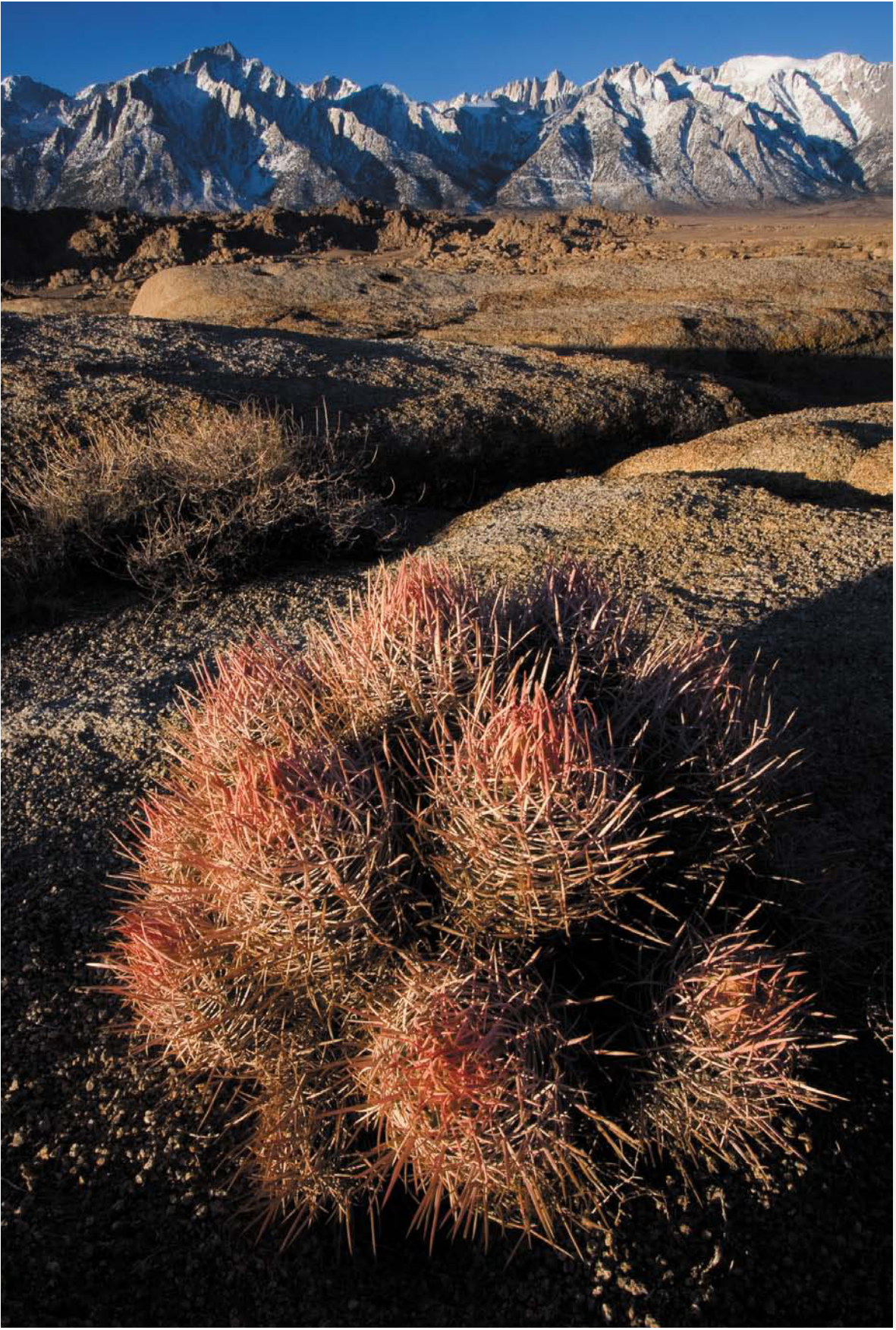
The quality of light at the magic hour can portray even the most mundane of subjects in a very dramatic way. During midday, these plants would be nothing more than grass and weeds. But by photographing them during the magic hour and by making the choice to place the sun behind them, the resulting photograph produces a result with a lot of impact. This image becomes more than just a document of the growth itself; instead, it's an examination of the quality and the impact of light.

The Foreground Element

When you want to make good landscape images, try looking for a strong foreground element—an object or area near the bottom of the frame that can serve as a visual anchor.

A beautiful sunset image is just another image of a beautiful sunset. It doesn't automatically result in an exceptional photograph. Though the sky may be rich with color and texture, the foreground may be deep in shadow and the overall composition may lack balance and weight as a result. The inclusion of a strong foreground element helps strike a balance and makes for a much more interesting photograph.

The challenge with this approach lies in the fact that the foreground may not be benefiting from the same light that's illuminating the background. This is a time when where you place your camera becomes very important.



Canon 40D | ISO 100 | f/22 @ 1/15th

The use of a wide-angle lens to emphasize the strong foreground element is made stronger by making sure that I use the morning light to illuminate the cactus in the same way as the light seen on the distant mountain range.

Though I knew I wanted to take advantage of the great quality of light illuminating Mt. Whitney, I also knew that I wanted to include a strong foreground element in my photograph. This was particularly important because I was using a wide-angle 14mm lens. Without this anchor, the image would've been lackluster. So, although there were plenty of plants and rock formations around me, it was this barrel cactus being illuminated by the sun that led me to plant my tripod there and to make this composition.

By placing the camera low to the ground, I was able to emphasize the cactus within the frame and build a composition in which the shadows helped bring shape and weight to the image. The shadows in and around the cactus, the shadows in the gaps in the ground and the shadows across the mountain range itself all help to complete this image.

So, just as I do with my close-up imagery, I'm considering the direction of the light and the resulting shadows to help inform where I put the camera and what elements I choose to include in or exclude from the frame.

Canon 7D | ISO 160 | f/16 @ 1/160th

Though the cloud serves as the anchor of the image, it's the foreground illuminated by the late afternoon light that provides a sense of context and contrast, making for a more interesting photograph.

For this image of a lone cloud in the sky, I knew that I wanted to provide some context for that cloud. Merely shooting the cloud against the blue sky wouldn't have been enough for me. So, taking advantage of the late afternoon light, I included this vineyard. Though it doesn't possess the singular strong element that the previous photograph has, it's the contrast of light and dark and the saturated, warm hues that provide an element of contrast to the blue and white that exist in the sky.

The anchor of the image is still the cloud and the expanse of blue sky, but it's the vineyard that not only provides a context, but also helps to emphasize the isolation of that single cloud within the frame.

HANDLING EXTREME CONTRAST

A variety of tools are available for dealing with the extremes in contrast that you may encounter creating landscapes. These tools and techniques can be very effective to produce images that retain the full range of detail and color that exists within the scene.

Graduated neutral-density filters are among the most important tools used by many landscape photographers. These rectangular filters transition from dark to light and exist to block a certain amount of light from reaching the sensor. The dark half reduces the exposure of the bright sky, while the clearer area doesn't impact exposure at all. This reduces the contrast between the two areas and brings it within the dynamic range of the camera's sensor. These filters are commonly available in strengths of two, four, or eight stops. You either can handhold them in front of the lens or use a filter holder that attaches to the lens for convenience.

External flashes provide a good way to produce illumination for a foreground area that's in shadow in the composition. Though a flash may not be able to illuminate the entire area in shadow, it can be an effective tool for emphasizing a certain area of the scene. The flash is best used off-camera with a tethered TTL cord or a wireless triggering device. This allows you to create some edge shadows, rather than producing a flat light.

HDR photography offers a software solution in which a series of images of the scene, taken at different exposures, can be combined to produce a single image. By taking a series of three or five different images (a technique called *bracketing*), the software can combine these photographs and the full range of highlight and shadow detail. It can then produce an image that captures that wide dynamic range of the natural scene. Photoshop offers this capability, but software specifically designed for this type of work includes Nik HDR Efex Pro and HDRsoft Photomatix.

Once I have the starting point, it's easy to think about what I want to emphasize in the scene. Then I make the conscious decision to include certain elements and exclude others. The light helps me to refine my vision so that my knowledge of the camera and composition can take over to make an effective and memorable photograph.

The Subject at Your Feet

Beautiful natural scenes don't always have to include dramatic skylines. Imagery that's just as stunning is right at your feet—you just need to take the time to look. I make it a regular habit to look where I'm walking because it's often on the ground itself that the splendor of light and the natural world really converge.

Photographing the salt flats offered me an opportunity to use the early morning light to reveal the texture and patterns produced in this unique environment. As I walked around this large expanse I looked for interesting patterns and colors and found it in this particular patch of ground, which was likely less than a couple feet in diameter.

When I make such images, I prefer to be on the shadow side in order to emphasize the shadows and the resulting shapes they produce. That contrast is at the heart of the image. It also reveals the gradation of color as the image moves from gray to a golden brown.

There were tens of thousands of feet around me where I could've made a photograph, but it was my focus on the light, the shadow, and the colors that helped me to make a choice as to where to plant my tripod legs.

Canon 40D | ISO 200 | f/11 @ 1/200th

Paying attention to the play of light and shadow allowed me to discover a small patch of ground that would serve as the subject for this photograph of the salt flats.

I often look at my feet when the light is less than ideal. Though many photographers pack their gear away during the middle of the day because the light isn't suitable for the majestic landscape, I keep my camera out looking for opportunities for dappled light. The contrast between light and shadow that this produces keeps me in the process of actively seeing and allows me to discover a subject that I would otherwise literally walk right over.

This image of leaves in the mud left behind after a rain was revealed to me simply because I took the time to look at my feet and examine what was happening with the light. Here, I loved how the saturated color of the fall leaves contrasted with the dark, wet mud. The dappled light created an interplay of light and dark that helped elevate my interest in the scene. I don't think this image would've been as interesting to me if it were completely illuminated by sunlight or evenly lit by open shade. It's the dappled light and how it reveals the dark tones and color that make for an effective photograph.

The plants in this image were about knee high when I walked past them, but I loved the way the light illuminated the center leaf. The transition from light to dark was gradual and created a kind of dark halo around the leaf that served as the anchor of my photograph.

Though the shadows are not as pronounced as in some of the other images, it's the presence of the shadows that help guide the eye to the brighter area of the image and focus the viewer's attention on the strong repeating pattern that serves as the heart of the photograph.

Slowing Down for Nature

When I began to photograph natural scenes, I was in such a rush. I wanted to take advantage of the magic light, which I knew to be fleeting and rapidly changing. So, I would run around searching for a place to plant my tripod and to make a photograph, worrying that I would miss a great opportunity for a photograph.

That way of thinking resulted in my playing it safe, making images that I had seen many people make before, but that had little to do with how I experienced it. So, although I might make an image that was technically proficient, it wasn't

Canon 7D | ISO 160 | f/9 @ 1/125th

By simply paying attention to the play of light and shadow on the ground, I was able to discover a beautiful subject that I would've missed completely.

Canon 40D | ISO 250 | f/8 @ 1/125th

Subjects that are close to the ground are just as worthy of a photograph, especially when illuminated by such a beautiful quality of light and shadow.

particularly unique, largely because I wasn't taking the time to experience anything. I just wanted to make the photograph.

Though I certainly want to take advantage of the beautiful quality of light, now I allow myself to enjoy the process of being in the outdoors and taking in its beauty.

For example, when I arrived on this beach near Monterey, I was looking forward to making photographs of an incredible sunset, contrasted against the large jutting rocks rising from the sea. Unfortunately, the day was overcast and despite my best hopes, the sun never broke through the cloud cover to provide me that spectacular view.

Instead of sulking in disappointment, I thought about the soft, diffused illumination and looked for subject matter that might allow me to take advantage of the light that I did have.

I found it on the ground itself, where I was gifted with a rich splendor of color, shape, and line. I might have driven to this location with one thing in mind, but by seeing and appreciating the light that was there, I was able to make images that I otherwise would've missed because I was rushing or grumbling about what I didn't have.

The natural world wasn't created for the purpose of photography. I always try to remember that, and I encourage you to do so as well. It's wonderful to come away with a beautiful photograph, but it's even better to remember what it felt like to be there in the first place.

Olympus E-3 | ISO 400 | f/4 @ 1/320th

Despite the fact that the cloud cover never burned off to allow me to photograph the sunset, I was still able to discover subject matter that could take advantage of the diffused light.

9 *Light and the Urban Landscape*

The city is where I live, and over the years, it has offered a wealth of material for my photography. Living in a place that inspires me has proven to be good for my development as a photographer—had I relegated my shooting time to vacations and the occasional weekend trip to picturesque locales, I know I wouldn't have grown as much.

To paraphrase the famous saying, "Familiarity breeds blindness." The things that surround me every day—such as the tree in front of my house, the gas station at the corner, or the plants in my backyard—are things that I know exist but that I often don't see. They're on the periphery of my vision, while my mind is more fixated on the next thing I have to do or the next place I have to be.


CNG

It's only when I put the camera to my eye that the world is transformed. Often, it's within the context of the photographic frame that those elements that make up life in the city are revealed to me, allowing me to create photographs that interpret the world in a completely different way.

Combating Literalness

When I think about the things that exist around me, I often think of them in terms of the function or service they provide me in my day-to-day life. The faucet in my bathroom provides water, which allows me to brush my teeth and shave. The plate that's in front of me displays what I've ordered for lunch. Signs help me to navigate from one destination to the other. The city and the things in it help to serve a purpose in my life or they don't—and if it's the latter, I'm often blind to them.

Yet, when I step back and dissociate the practicality of those things, I can see them in the same way I might see a natural landscape in Joshua Tree or Yosemite. It's then when I begin to think of how the light reveals shape, color, tonality, and design. Though Mother Nature has created some remarkable and beautiful things, people have also created some fascinating things—and there's just as much beauty to be appreciated in the man-made world as in the natural one.

> **REMEMBER:** When people respond to a photograph, it's not merely because the photograph is an "accurate" representation of what was in front of the lens. It's a personal interpretation that emphasizes those aesthetic qualities of the subject that creates a special visual experience.

Olympus E-30 | ISO 200 | f/6.3 @ 1/800th

The beautiful quality of light after a rain provided a wonderful source of illumination for this image of an everyday telephone pole and lines, making it more of an exploration of line and shape.

This image is of a telephone pole in front of my home. I'd seen it every day for years, but I paid attention to it only when someone had posted a flyer advertising a coming yard sale or a lost pet. On this particular day, I gave myself the assignment to photograph only things that were right outside my door—only things that were within the proximity of my home.

The tall wooden pole and the lines leading from it became something more. Against the cloudy blue sky, the poles and wires became strong graphic lines and shapes. There existed a contrast of light and dark, and color relationships

between white, blue, and brown. Yes, the image consists of a telephone pole and a sky, but the reaction that I hope people experience when they look at the photograph goes beyond merely identifying the objects themselves. It's about experiencing the discovery of the graphic beauty that I suddenly discovered at that particular moment.

There have been countless times when people have stopped to ask me what I was photographing. They see my camera pointed toward the ground or at a wall and they don't see anything beautiful or worth photographing. Thanks to digital cameras, I can turn on my camera's LCD and show them what I'm seeing—and I get to enjoy the surprised looks on their faces when they see how *I* was seeing, something that their own eyes had completely passed over.

Light and Shadow

One of the ways I help move away from literalness is simply to focus my attention on the play of light and shadow. When I do this, I'm examining how light interacts with the things around me and creates shadows. The play between light and dark helps to focus on the details that make something what it is—whether it's color, shape, or texture. I may be turning my lens on a door, a wall, or a street corner, but I'm letting the light guide my eyes rather than trying to hunt down specific objects that I think would be photo-worthy.

I probably passed dozens of doors while walking down this street one afternoon, but it was the way the light cut across the peeling paint, the handle, and the lock that made me stop. The light and shadow helped to reveal the texture of the door and the wall as well as the shape of the handle and lock. The colors are vibrant, which helps give the image its pop. Those things are great, but it's the evidence of where the handle was before that helps tell the story of this particular door. I like the contrast of the unpainted and the painted. This not only provides great color contrast but also helps to tell a story within that single frame.

Fuji FinePix SJ9100 | ISO 200 | f/7.1 @ 1/125th

Awareness of light and shadow helped guide me to a worn door and lock, which, because of the light, becomes a beautiful subject for a photograph.

I've taken hundreds of pictures of doors and entryways, but this one is different because of those telltale qualities. Would I have seen it had I been looking only for pretty things to photograph that day? Likely not. An old door isn't on most people's lists of beautiful things. But because I allowed myself to be guided by the light, I was able to discover a beauty that others at the location were likely oblivious to.

Speaking of workspaces, this image was made while exiting my studio from the rear entrance. I can't tell you how many times I had walked down this stairwell on my way to the car. But on this particular day, I caught sight of the shadow that was being cast against the wall and the cloudy sky, and I began making photographs.

The image consists of nothing more than stucco walls and a sky with some clouds. Yet, those common things are revealed in a beautiful way, because of the quality of light and the graphic shadows that are cast against the wall. In that particular moment, within the context of the frame, those ordinary, simple elements have a relationship to each other, which help to reveal each element's color, shape, and texture. Using nothing more than a camera and a fraction of a second of time, I'm able to show you how I saw the world at this particular moment. You might not know exactly where it is or know that I was leaving the studio, but hopefully you do get a sense of seeing something beautiful.

> **TIP:** Setting a limitation to pay attention only to light and shadow is very similar to giving yourself an assignment to photograph only things that are red or round or old. Those kinds of restrictions help to refine your eye and to see the world more carefully and specifically. Things that you would otherwise completely miss become obvious.

Canon 40D | ISO 100 | f/16 @ 1/125th

Despite walking down this stairwell hundreds of times, it wasn't until this particular day that I caught sight of the interesting shadows, which revealed the beauty of this scene.

Canon 20D | ISO 100 | f/10 @ 1/80th

Despite having driven past this scene many times, it wasn't until I saw the beauty of the light that I parked my car and made an image of this scene.

Light and the Graphic Element

If there is an abundance of anything within an urban environment, it's lines and shapes. They're everywhere—from the fine details of a classic storefront to the shiny lines of a skyscraper to the shape of a park bench. Designs from the sublime to the garish exist all around you, and it's those qualities that often can become fodder for excellent photographs.

I adore cities—the juxtaposition between old and new offers a wealth of opportunities for photography. But you don't have to live in a major city in order to have great opportunities for photography. Whether you live in a big city or a small town, design is everywhere.

The laundromat where I made this image was a location that I passed every day for over a year, before I finally made a photograph. The wall and the trees are pretty nondescript, and the parking lot is bare and gray. Yet, because of the way that I composed the various elements within the frame, the wall, the trees, and even the parking lot itself become elements of shape and design that produce a pleasing photograph.

By exploring everyday scenes and settings like this in the abstract, by breaking them down to their basic elements with the aid of light and shadow, I revealed those qualities that had gnawed at me for a year, before I finally interrupted my commute to make the image.

When I glimpsed the shadow of this arrow signage being cast on the wall across the street, I knew I had to work my way through rush-hour street traffic to make an image. Though it was the shadow of the arrow that grabbed my attention, I was increasingly intrigued by the overwhelming signage that existed at this corner. The clutter of words and graphics are a common occurrence in Los Angeles, and I enjoy how the image takes advantage of that quality and the late afternoon light.

The photograph may not necessarily fit many people's definition of "beauty," but for me it is beautiful; plus, it captures an important detail of life in the city. Besides the huge billboards that pepper the landscape, there are small signs and words everywhere, vying for people's attention.

The marquee of a market, which was a former movie theater in New York City's Washington Heights neighborhood, provided me an opportunity to make an image that takes signage and moves it away from the literal role it was intended for. By intentionally excluding the full text and emphasizing the architecture around it, I emphasized the color and the shapes that existed there.

Architecture is a favorite subject for photography, but I'm always hoping to reveal it within the context of interesting and beautiful light. If I'm documenting a building for an architect that's one thing, but if I'm making a photograph that reflects my experience or feelings of a scene, I'm looking for something that makes it special to me.

Canon 20D | ISO 400 | f/13 @ 1/250th

The glimpse of the shadow being cast on the wall forced me to stop. When I did, I discovered a clutter of signs that, within the frame, express something of my experience living in the city.

Nikon D60 | ISO 400 | f/8 @ 1/60th

Signage is everywhere, but for me it's only about color, shape, and design, which I get to emphasize at this location in New York.

There are few cities better for photographic architecture than New York. It's not just the juxtaposition of old and new architecture or the city's rich history that plays a big role in my fascination. What makes New York a remarkable place for me is the way that light is filtered and reflected from the myriad surfaces that exist along the streets. Light is transformed in a way that's unlike most other places I've visited, making the city a smorgasbord of opportunities for me as a photographer.

On this particular day, there was no shortage of buildings to photograph, but this scene just outside my hotel on 42nd Street revealed an amazing spectacle of reflected light. The image reveals the contrast between older and newer buildings, while the light itself is reflected on the surface of the building, creating a striking bright pattern against a large expanse of shadow.

This image consists of three different buildings, but it becomes a photograph less about documenting the existence of this trio of edifices than about the magic of lighting and the repetition of line and shapes.

> **REMEMBER:** You don't have to live in or visit a city like New York to create these images. The wonder of light and what it can do exists everywhere, from big cities to small towns. All you need as a photographer is to open your eyes to what exists right in front of you.

Nikon D60 | ISO 400 | f/11 @ 1/60th

The way light is reflected off the various buildings and surfaces in New York provides me a rich palette from which to reveal the beauty that exists in this major metropolis.

Life and Light in the City

I enjoy making abstracts and architectural imagery, but life in the city is what inspires and challenges me as a photographer. Whether I'm home or traveling, I hope to capture images that provide a sense of what life is like in that particular city or town. Though photographing people offers its own set of challenges, I still allow light to help me discover and make these photographs.

When I made photographs of this carnival ride, I wanted to capture something of the experience of riding it, without getting on the ride myself. To do this, I decided to take advantage of the shaft of light that was illuminating some of the ride and the carnie in charge of it.

My awareness of the light dictated my position along the safety rail and the overall composition. Now, I just had to take dozens and dozens of images until I caught the car that the kids were riding in facing toward the light. This allowed me to capture their joyous expressions, which complemented the bemused look of the carnie.

When I travel, if I don't make images that include people in them, I see that as a missed opportunity. The experience of life around me is about the experience, and I want to capture that. If I can capture the graphic beauty of the city with the energy of the people, then I feel like I'm on the right path.

Olympus E-30 | ISO 100 | f/8 @ 1/30th

By paying careful attention to where the light was falling, I was able to make an image that illuminated both the carnie and the children on this fast-moving ride.

Olympus E-30 | ISO 800 | f/4.5 @ 1/50th

The soft quality of the overcast skies provided a wonderful palette for exploring the colors of this scene, which was made all the more effective by the unexpected appearance of the boy.

When I stopped to make this photograph of this gas station, I was responding to the repeating elements of green and yellow. The overcast skies revealed the color and texture of the station, cabs, and surrounding buildings in a way that piqued my interest. I was making repeated images struggling to find a composition that worked for me when this young boy shot across my field of view for a series of three frames. It was pure serendipity that he was wearing a hoodie the color of which perfectly matched the color of the station itself. It was pure luck that allowed me to captured him as if he were floating over the ground. The fact that he's blurred while everything is static is an element that works for me.

Those kinds of unexpected moments are what wonderful images are about. There is no way to predict such opportunities, but my experience has shown me that it often revolves around taking advantage of what a scene and setting is providing me and being ready and open to the moments. My ability to capture such fleeting and unexpected moments is rooted in my assessment of the light and changing the settings on my camera accordingly. Without that, this would have resulted in yet another missed opportunity.


shop
service
15 MIN. OIL CHANGE
NY STATE INSPECTIONS
PLAY
NYC TAXI
1M31


BROADWAY
66
66
366
Broadway
ATM

When I was walking through this press of people waiting to get on a bus in downtown Los Angeles, I had just a few moments to make this photograph of this young man who seemed in complete isolation amidst a sea of people. Though he serves as the visual anchor of the image, with his white shirt and his lost gaze, the photograph consists of elements that reveal a sense of place.

I favor moderate to wide-angle focal lengths, so I often have to work quickly to get my photographs. I enjoy the intimacy that these focal lengths provide. Longer lenses can provide you a comfortable sense of anonymity, but I prefer the feeling of being in the midst of things that using a normal to wide-angle lens provides me. Such a lens allows me the ability to include more of the environment in the photograph, which roots the image in the place where the photograph was made.

Canon 20D | ISO 400 | f/6.7 @ 1/90th

Awareness of the quantity and quality of the light allowed me to have my camera ready to capture the contrast between this young man and the rush of people around him.

Though the middle of the day wouldn't seem like a particularly good time to make images of the city, it was when I made this image. When I saw the quality of the light, I knew I wanted to make high-contrast images, so I set my exposure biased for the highlights, forcing the shadows to go black. Then, when I saw the fire hydrant and the alley illuminated by sunlight, I knew it would respond well to being exposed in this way.

However, I also knew that the shot wasn't complete, so I waited for someone to walk past the alley. Within a few minutes, this man walked by, and I made the image. It was only later that I noticed that the bird in the sky mimicked the *V* shape of the man's legs, providing a nice little accent to the shot.

For everyone else walking down the street, this was nothing more than an alley, used primarily by trucks delivering their products to the adjoining stores. But because of the way I saw and used the light, this small bit of San Fernando is transformed into something completely different.

Olympus E-3 | ISO 100 | f/16 @ 1/125th

Though harsh lighting produced by noon sun was ideal for me when it came to making this image of an alley and hydrant, it was made complete by the man and bird entering the frame.

The Magic of Night

Available light isn't just about shooting in the day. The night offers as many opportunities for photography as the day does. Though there is a different set of challenges to be overcome, the beauty of a city at twilight and in the heart of the evening can be a great source of images.

The reduced quantity of light is the major obstacle that I have to face when shooting. A tripod often becomes an essential tool for producing these kinds of photographs, but barring that, I won't hesitate to brace my camera against a wall or a table in order to achieve a sharp photograph.

Artificial light sources are unpredictable, which may prove a headache to some photographers, but offer me some pleasant surprises. A mix of tungsten, fluorescent, halogen, and other light sources produce a mix of different colors from office buildings, streetlights, and storefronts.

In such situations, I often start with my white balance set to the Sunny WB preset. Though I'm not using the sun in these images, there is a consistency that I can expect with respect to the color of the light—I use this as a starting point for any adjustments that I may make later. If I'm shooting under strictly one light source, such as fluorescents, I use the appropriate WB preset, but when it comes to mixed light sources, the Sunny WB preset provides me a good place to start.

I was walking into a restaurant in San Francisco after teaching a workshop, when I spotted this scene at a street corner. I knew that I would need to use a slow shutter speed. Because I didn't have the benefit of a tripod, I braced my camera on a light stand. Though the light stand provided a relatively stable platform, I increased the ISO to 800 in order to achieve a shutter speed that would allow me to blur the passing vehicles in the way that I wanted.

The mix of different light sources created a mishmash of different colors painting the scene, which, for me, adds to the scene's ambience. An image like this is open to a bit of interpretation when it comes to post-processing, but I still like to have an anchor, which for me is the interior of the liquor store. As long as the colors appear relatively true there, I'm free to make adjustments to the overall hue and color of the street itself.

Olympus E-30 | ISO 800 | f/5.6 @ 1/10th

The unpredictable nature of artificial lights in the city can provide a unique look to street scenes, transforming them completely from how they look during the day.


WOERNER'S
CIGARS
LIQUORS
LIQUORS
GEARY
CENTURY

Olympus E-3 | ISO 200 | f/10 @ 10

By shooting at twilight, I was able to make an image that captures the fading light of the sky with the artificial illumination of the buildings and the cars streaming down the freeway.

Though I had driven through the heart of Los Angeles tens of thousands of times, it wasn't until I went out with my friend and fellow photographer, Scott Stulberg, that I had the opportunity to photograph Los Angeles at twilight. This is often one of the best times to photograph a cityscape, because I not only have the benefit of the rich color of the sky, but also the illumination from the buildings themselves.

And because I was working with lower light levels, I was using slower shutter speeds (10 seconds, in the case of this image) to capture the streaking of the vehicles speeding down the freeways. The window for opportunity when you have both fading sun and city lights is a narrow one, so it demands that you're at the right location well before the sun disappears below the horizon.

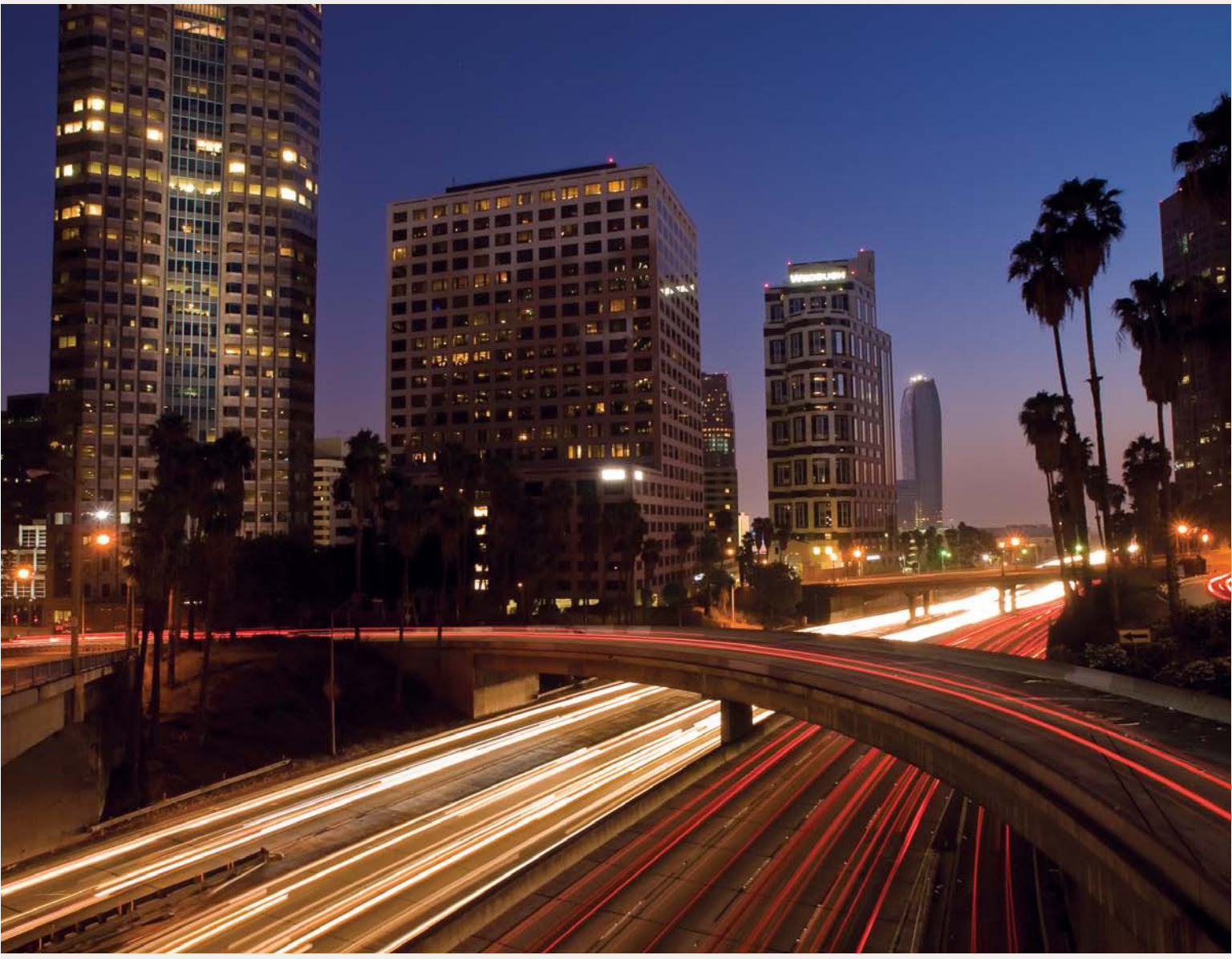
Besides a tripod being a must, so was my remote release, which allowed me to release the shutter without having to have my hands on the camera. Even the slight movement of pressing down the shutter release on the camera would have introduced camera shake.

Because I was using a tripod and longer shutter speed, I didn't need to increase the ISO. The longer duration of the exposure already introduced some level of noise, so by keeping the ISO relatively low, I kept noise to a minimum.

> **TIP:** Shooting at night is a good time to use a camera's auto-bracketing feature, just to ensure the best exposure possible.

FINDING THE OPPORTUNITY

I talk to many people who wish they had more time to make photographs. They often dream of taking a great vacation to allow themselves to take advantage of their cameras, but such opportunities can be weeks or even months in the future. By simply keeping an eye out for the light that's around you, you don't have to wait for such rare opportunities to practice the art of seeing and making photographs. It becomes available to you anytime you choose to make it. Times like these are not just about making the photographs—they're about developing your ability to see.



10 Light and Black-and-White

The beauty of photography for me has always been rooted in the magical appearance of a photograph in a darkroom-developing tray. For me, those black-and-white images were the beginning of a way of seeing that continues to this day.

Though converting color photographs into black-and-white ones is now par for the course, a good black-and-white isn't the result of simply extracting color. By eliminating color, I can take those elements of contrast, sharpness, pattern, and brightness and magnify their ability to control the viewer's experience of a photograph. When I do so, I can create an image that serves as the starting point for a successful black-and-white photograph.

Personal Reality through Black-and-White

Of the five visual draws, four of them—contrast, brightness, sharpness, and pattern—are as important in my black-and-white work as they are in my color. Each is still rooted in how I evaluate the light and the resulting photograph.

So, when I'm shooting, even for the specific purpose of black-and-white imagery, I'm still considering those visual draws when I select and create my compositions. If my approach to the visual draws changes at all when it comes to black-and-white photography, it's in my increased focus on contrast. The contrast between dark and light tones is what shapes the heart of any monochrome photograph.

This image of a young pool player is one of my earliest successful images. Even before I fully understood the principles of a good photograph, I knew when I developed my first print that I had achieved something with my camera. However, it wasn't until years later that I understood that the contrast between the cue ball and the table is what helps create a strong visual anchor in the image. The cue ball is the brightest element in the frame; plus, it has the strongest point of contrast. Building on that, the leading line of the cue stick and the boy's intense gaze result in a strong visual composition.

I might not have been aware of those elements when I made the photograph, but it was something that I knew, at an instinctive level, worked when I held that print in my hands.

Ironically, the great power of black-and-white is that it allows me to enhance reality by removing the color that normally exists there. By transforming the scene from color to black-and-white, the photograph becomes more about those basic visual elements that drew me into the scene in the first place. It helps me in my attempt to make the viewer look at the scene differently.

The subject may be a person, a building, or a ladder, but by creating compositions based on how the subject responds to light, my black-and-white images move away from being just a document and become a personal expression of what I saw and felt.

Nikon F | ISO 125 | f/2.8 @ 1/60th

This early image of mine is successful because it builds on many of the principles I use today to create my photographs.

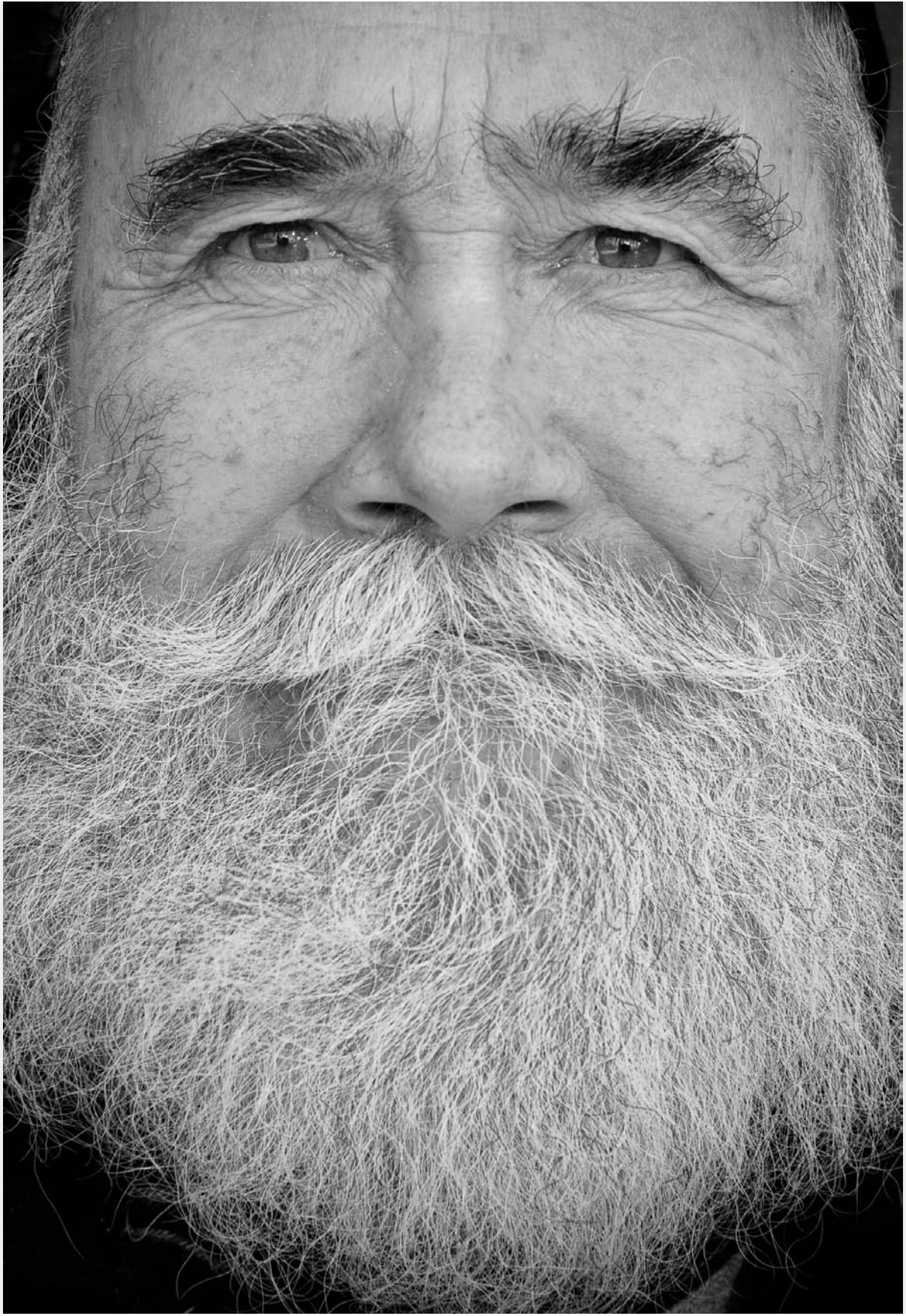
When I made a photograph of this man, I knew it would make a great black-and-white photograph. He had a great face and I particularly loved his beard and his eyes. The color images revealed the capillaries on his nose and face, which not only would've been distracting but would've expressed something different about him than what I wanted to express. So, by converting the image to black-and-white, I was able to emphasize those qualities that had made me notice him in a crowd of people.

The color image may have been a more "accurate" representation of what this man looks like, but this black-and-white image reflects the truth of how I saw him and what attracted me to him. There's a strong contrast that exists between the dark eyes and eyebrows and the white beard and the black-and-white photograph emphasizes that. These are the very things that I found most fascinating about his face.

By using the natural visual draw of brightness and contrast, I can shape the viewer's experience of the image. Could I have done that with a color image? Probably, but the experience of the image would've been very different as a result.

Canon 40D | ISO 250 | f/7.1 @ 1/125th

Knowing that I wanted to emphasize his eyes and beard, I intended to create this as a black-and-white image.



Olympus E-30 | ISO 800 | f/2.2 @ 1/160th

When I saw the dark tones of his skin and uniform, I knew I wanted to produce a black-and-white image, so I built the image around the contrast between his face and his uniform.

Here is an image that I showed in Chapter 2 to demonstrate the power of contrast. The image on the left is the color file as produced by my camera; the image on the right is a black-and-white conversion. When I photographed him I was reacting to how the hat and jacket framed his face. I also liked the details of the decoration on his chest. The color image includes all those details, but it's the black-and-white image that makes those elements more important in the photograph. By taking away the color and by performing some selective *dodging* (lightening) and *burning* (darkening), I was able to create a version of the photograph that reveals how I perceived him.

My knowledge of what drew me into the image in the first place allows me to make an informed decision about not only which images I want to convert to black-and-white, but what changes I'll need to make to the files in order to achieve the experience that I'm looking for.

Choice of Emphasis

The question that I often ask myself when making an image is, "What do I want to emphasize?" The answer to that question allows me to use light, contrast, brightness, sharpness, and pattern to make a successful black-and-white photograph.

The image of this mailbox works well as a color image. The color contrast between the gold and the black is a striking one—it's what really grabbed my attention. The eyes go immediately to the mailboxes and are virtually locked on them as a result of their brightness, contrast, sharpness, and color saturation.

However, when I converted the image into a black-and-white image, I experienced the very same scene in a different way. The mailboxes are still the anchor of the image, but now the texture of the wall, the repeating pattern that exists there, and even the faded graffiti become much more apparent. Now the image isn't so much just about the mailboxes, but about the entire wall. Each element supports and complements the other.

Canon 20D | ISO 400 | f/4 @ 1/50th

These images work equally well, but the ultimate result is markedly different as a result of producing one image in color and the other in black-and-white.

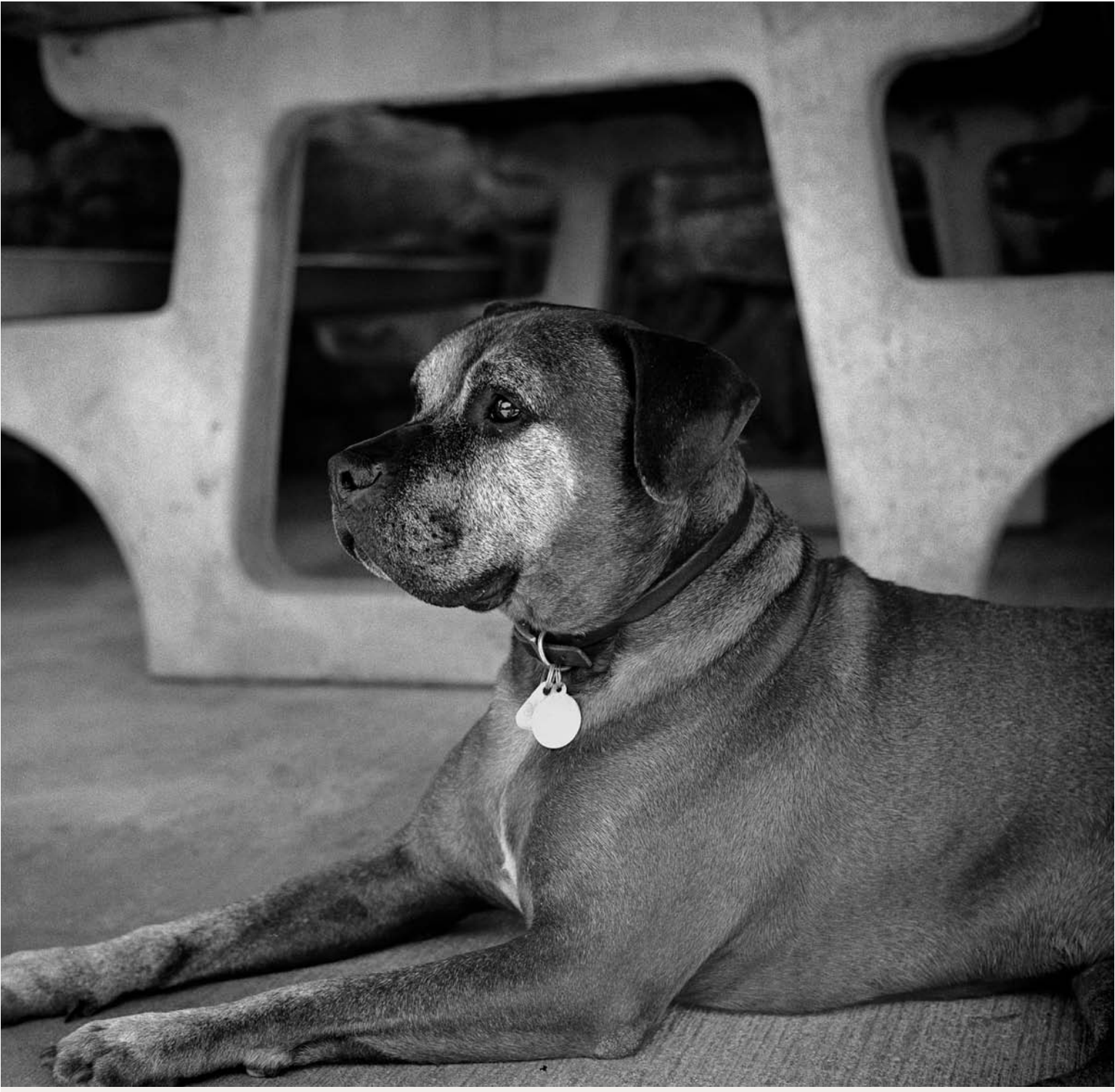
These photographs originate from the same file, but the interpretation of those files is rooted in what I want to emphasize to the viewer. I need an awareness of what I want to emphasize in a photograph. If I don't have that, I'm just pointing the camera at something and praying that I get something good. Knowing what I want to emphasize not only allows me to assess how I want to use the light but also informs what I choose to include or exclude from the frame.

When I made this portrait of my friends' dog, Boz, it was during a picnic. There were dozens of people around us. I loved the quality of light on his face and chose my position based on that. However, I was also aware that I didn't want to include extraneous elements, such as people's feet and legs. I got down to his eye level and used the bench behind him as a background. The support for the table provided a great framing device for his head; plus, it gave me an element of light and dark to contrast the various tones of his body and head.

Though what I choose to include or exclude in the frame is always important for my photographs, it's something that I become especially concerned with when I'm considering a scene for a black-and-white image. A bright area in the background that might not be a huge distraction in a color image takes on greater significance when converted to black-and-white, where it's all about darkness and light.

Yashica-Mat 124G | ISO 400 | f/4 @ 1/125th

Even with my old twin-reflex camera and Tri-X film, I was able to use my awareness of light to create this portrait of my friends Petrea and John's dog.



For this image of a storefront in downtown Los Angeles, there were many elements that I could've included in the frame. However, I knew I wanted the dress to serve as the visual anchor of the image. I wanted to contrast the white pristine quality of the dress with the darker, urban environment around it. If the dress had been a secondary element, it would've been a huge distraction to the photograph, particularly if I had wanted to emphasize the ladder. If that had been the case, I would've needed to find a way to exclude the dress.

As a beginning photographer, I might have made this image with my visual focus on the ladder. And only later would I have realized that the dress, because of its brightness and contrast, was a strong visual element in the frame. My perception at the moment of exposure allowed me to make an informed decision about what elements I included or excluded from the frame.

I make it a regular practice to scan the edge of my frame when creating a composition to find just such distracting elements. By pulling my attention away from my main subject, I can analyze the entire frame and make a change if necessary.

Canon 40D | ISO 200 | f/5.6 @ 1/100th

Awareness of all the bright and dark elements in my frame allows me to intentionally include or exclude things, which helps to produce a strong composition.


Barba
LADDERS


CAN IT FOR A
GREENER PLANET!

Canon 40D | ISO 400 | f/4 @ 1/250th

By using a rich range of tones and areas of strong contrast, I was able to produce an image that explores the beauty of an apartment building and subway station.

The Beauty of Gradation

A beautiful black-and-white photograph isn't just about extreme contrast between black and white. Often the magic of such images lies in the subtle changes between grays. Though having a strong black-and-white element in the frame helps produce a pleasing contrast in a photograph, it's the varying degrees of black to white to gray that can help to produce a good photograph.

At first glance a viewer might think that this image is about a woman waiting in a subway station, but it's really about the details of the building and the station itself; the woman primarily serves as a reference point for scale and as a nice human element. The brightness of her blouse provides a nice complement to the bright windows, which helps bring a good sense of balance to the overall composition.

However, the beauty of this photograph lies in the interplay of all the various tones. The dark tones of the window frame, the trash bin, and her pants contrast with that of the windows and portions of the walkway. The face of the apartment building provides an interesting exploration of the middles tones while revealing the pattern of the brickwork.

This image was produced during a break in the rain. So, the light was very diffused and soft, providing even illumination for the entire scene. Though the original file lacked contrast, the exposure delivered by my camera was enough to produce a full range of detail from the highlight to the shadows. This is especially important for black-and-white work, because blown-out highlights are near impossible to fix.

Here's a very similar scene, but illuminated by direct sunlight. I'm also revealing the textures and tones of the street and building, but here the man and his shadow play a significant role in the image. It's not only his shadow, but also the shadow of the fire escape that helps reveal the brickwork. Because of the directional quality of the early morning light, the gradation from light to dark becomes more defined.

Each of these photographs is of an old apartment building, which you can find in abundance in the city, but it's my perception of light and the gradation from dark to light that allow me to make effective photographs. These photographs become more than just images of a person standing or walking, but an exploration of the beauty that I perceived of one of the most common and frequently seen things in the city, an old apartment building.

By taking a step back from the literalness of the object that I'm viewing, I'm able to use the power of black-and-white to reveal the scene in a way that is likely very different from those who live in or visit the city.

Nikon D60 | ISO 200 | f/5.6 @ 1/160th

The directional quality of morning light produces some strong graphic shadows that add to this image of an apartment building, which also emphasizes the various tones of gray.

Olympus E-3 | ISO 250 | f/5.6 @ 1/125th

Not satisfied with just freezing the action, I used good panning technique and a black-and-white conversion to create my own personal take on this jockey and horse.

The power of exploring that range of tones is not limited to photographic landscapes or portraits. It can be just as effective a tool for action, as demonstrated in the image of a racehorse and jockey.

This photograph is obviously an action shot that could be captured by virtually anyone with a long lens, but I put my personal stamp on it by not only presenting it as a black-and-white image, but massaging the image to emphasize those areas of black, white, and gray.

By using the visual draws for brightness, sharpness, contrast, and even a bit of pattern, I was able to make the horse and jockey the anchor of the image. The use of good panning technique helps to create a visual contrast between them and the blurred background. However, it's the presentation of the tones that makes this image visually appealing and makes it very different from what many other photographers alongside me would have produced that day.

PANNING

Panning is a technique in which the camera moves in tandem with a moving subject to render the subject sharp, while keeping the background blurred. Such images convey a sense of motion and energy created by the contrast of the sharp subject and the blurred backdrop.

With the camera set for a moderate shutter speed, such as 1/30th second (the ideal shutter speed varies depending on the speed of the subject and the distance from the camera to the subject), you begin to follow the subject well before the subject is in the position where you intend to make the photograph. After you press the shutter-release button, you continue to follow through with the movement to ensure sharpness.

When I use this technique, I set my camera to the continuous drive mode and begin firing a rapid sequence of images as I pan. I also pan not by moving the camera itself but instead by swiveling at the waist. This provides the best stability to ensure a sharp photograph.

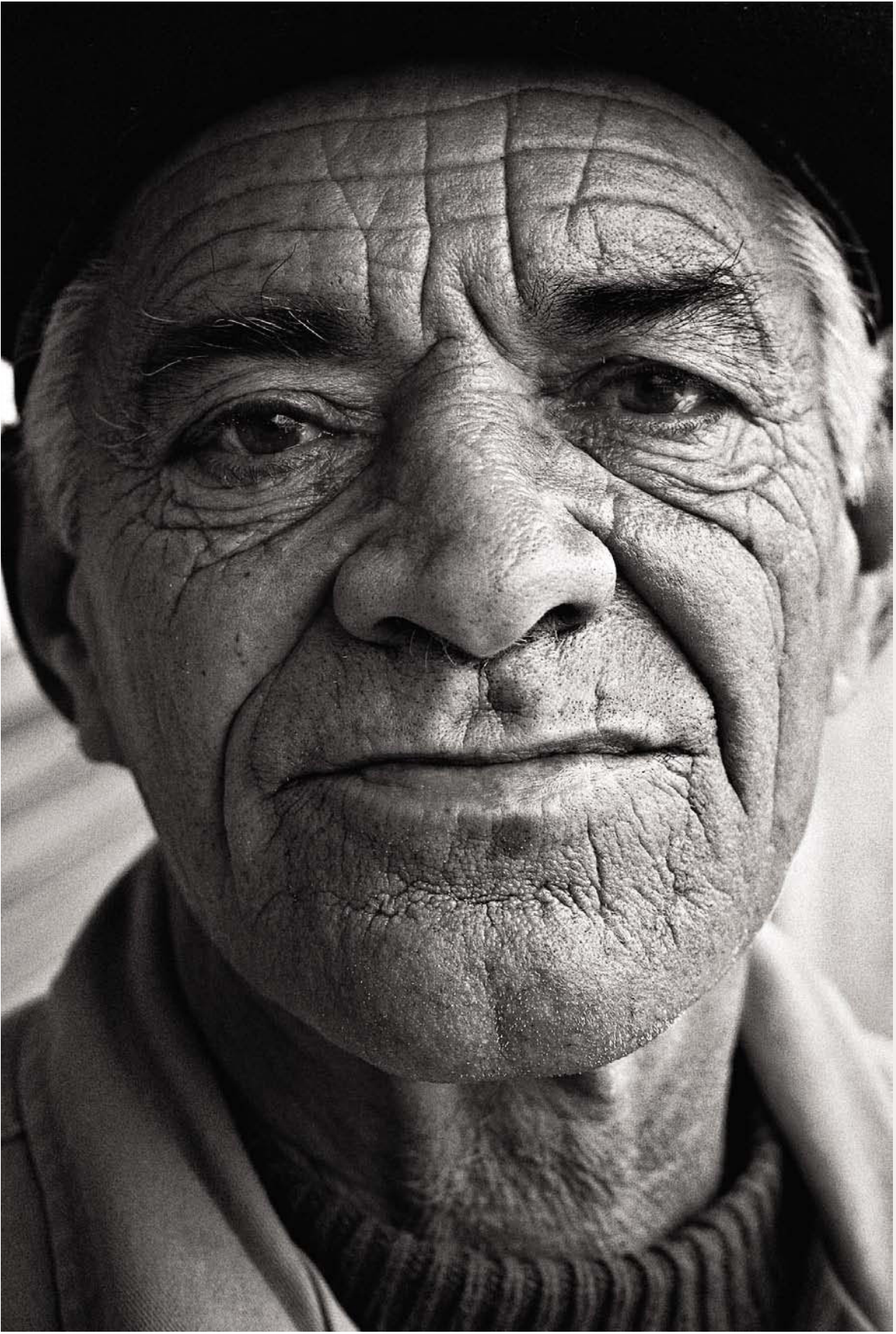
Olympus E-3 | ISO 400 | f/3.7 @ 1/25th

The color image emphasizes my subject's hair color, while the black-and-white conversion allows the viewer to focus more on his eyes and expression.

One of my favorite subjects for black-and-white images are portraits. People's faces can be revealed in amazing manner in black-and-white. But just as with a color image, I'm always thinking of the quality of light.

When I photographed my friend Carl, I knew I could compose a color photograph that emphasized his red hair and beard. The reddish color was a big visual draw, and I worried that it would take attention away from his face. The color image is a great version of the image, but I wanted to focus more on his expression in the black-and-white image. In the black-and-white image, I emphasize his face and expression more by using the hair and beard as a framing device for his expression and his eyes. The image seems to radiate from his face and the tones build from there.

His hair takes on a different presence because of the conversion to black-and-white. Instead of the focus being on the color, it's the shape and texture of his hair that is emphasized from the varying gradation of gray to black. With the color image, it's all about the color. A different quality is emphasized when the image is converted into black-and-white.



Using a completely different quality of light allows me to reveal a subject in a very different way. I used the directional quality of the light, which allows me to reveal the ruggedness of his face. The lines of his face are revealed because of the contrast between light and dark.

My awareness of the quality of light helps me to choose the appropriate light for the right subject. I don't want to use hard directional light on an older female subject, but it may be ideal for my portrait of a young football player. The image of a young child may call for some diffused light, easily found in an area of open shade. That awareness of the light and how it impacts light and shadow serves as the beginnings of a good black-and-white image.

Canon 20D | ISO 100 | f/5 @ 1/60th

Using a directional light allows me to reveal the rough detail of this man's face, which is revealed through the use of varying degrees of contrast.

Black-and-White Conversion

There are a wide variety of ways to convert a color file into a black-and-white image. Black-and-white conversion is a hotly debated topic—many photographers believe that some methods are infinitely better than others.

That said, the initial conversion isn't what's important to me—it's the process of selectively lightening and darkening the image that matters. Referred to commonly as dodging and burning, these terms refer to the techniques practiced in a traditional darkroom, where more or less light would be allowed to make contact with the paper, thus, lightening or darkening specific areas of the print. Dodging and burning are the most important parts of the process for me, because they allow me to take a black-and-white file and really shape it.

I've tried many conversion techniques, but my favorite is Nik Silver Efex Pro (www.niksoftware.com), a software application that works as a plug-in to Photoshop, Lightroom, and Aperture. I like the versatility and control provided by what are called *control points*. By simply clicking on a specific area of the

image, I can selectively darken or lighten that area, as well as increase contrast, sharpness, and more. I can select multiple points on an image and eliminate the tedious task of creating masks or selections in Photoshop.

> **TIP:** If you use Photoshop or Lightroom, *Lessons in DSLR Workflow with Lightroom and Photoshop*, by Jerry Courvoisier (published by Peachpit), provides some solid information on getting good black-and-white conversions.

I took this photograph of the security guard with the intention of making a black-and-white image. I had him pose against the side of a newsstand because I wanted the dark tone of his uniform and hat to be complemented by the metal wall.

The original color image reveals the different colors of the jacket, hat, and wall, which doesn't work for me. I knew that by converting the image over to the black-and-white image, I would change all those colors into varying degrees of gray and that they could be made to appear more like each other than they would in color. The resulting image would allow me to emphasize the darker tones in the image, including that of the man's skin and the strong highlight provided by the badge on his hat.

Using the default conversion in Lightroom, I created the first conversion of the image. The result certainly removes all the color, but the file is nowhere close to the vision that I had originally intended. This is similar to the results that you would achieve with most photo-editing applications.

The issue of the varying color is illuminated, but the difference in tones still exists and the viewer's eye will tend to wander off the face to the edge of the frame, because the jacket is slightly brighter than the face. The badge still draws the eye, but the man's expression gets lost and becomes secondary to the image.

By selectively dodging and burning I can significantly change the experience of the image. I applied an overall dark vignette over the edge of the image. I also selectively darkened the jacket, the hat, and some of the subject's ear. Then I lightened the face and increased the contrast and sharpness. This resulted in more of what I intended when I made the photograph.

By knowing what I want to emphasize, I can make the right choices when I actually make the image, which serves me well in the editing and refinement of the digital file. If I hadn't moved him and had included a bright element in

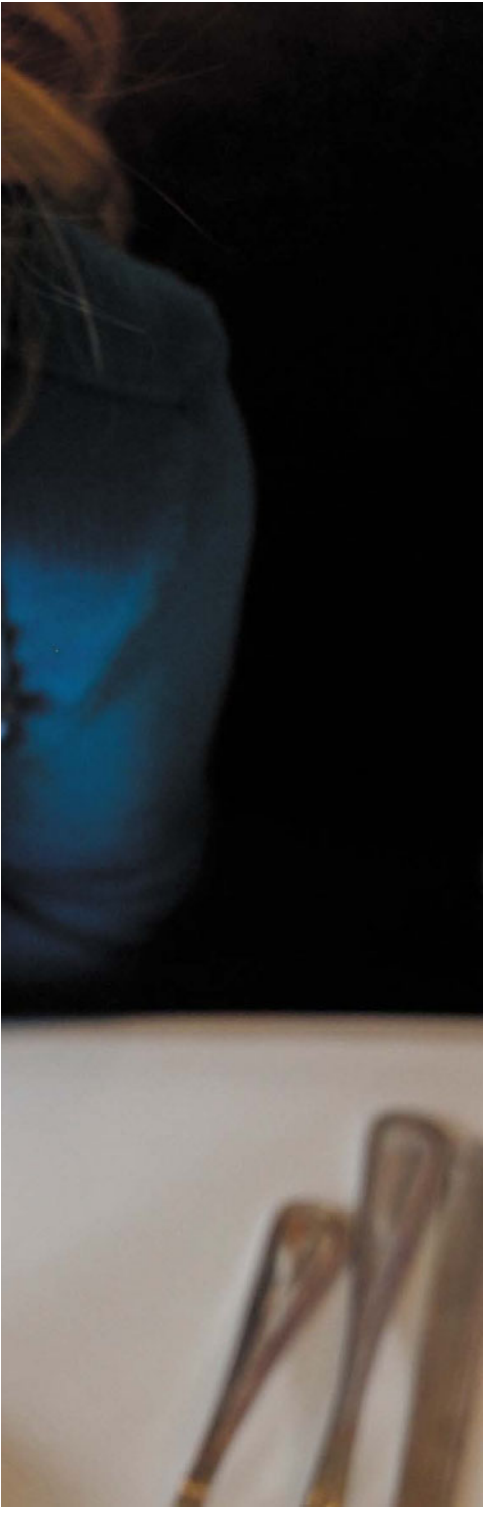


Olympus E-30 | ISO 800 | f/2.2 @ 1/160th

The creation of a good photograph begins with the choices made during the initial exposure, which can then be refined, by a good black-and-white conversion and dodging and burning.

the background, this image would've been much weaker and would've created some serious editing challenges. But by using a good quality of light and staying aware of those elements that I knew would be visual draws, I was able to create an image that closely matched the images I had previsualized when I encountered this man on the street.

As someone who thoroughly enjoys making black-and-white images, a software application that allows me to selectively dodge and burn is essential. Merely making a conversion to black-and-white is only going to be a starting point.



11

Wrangling the Light

The majority of my images are dependent on found light—the light that is present at the moment of inspiration. Often, the light is acceptable and, on occasion, if I'm lucky, it's perfect. Other times, the light is *almost* what I need, and I have to manipulate and control it to make it serve my vision for the photograph.

If I'm aware of the qualities of the light, I can make a conscious choice as to how I want to use it with my subject and scene. In addition to choosing the settings on my camera, I can choose how I want to use the light, and that can inform my camera position or the location of my subject. It can also call for me to use certain tools for getting the best shot possible.

Naturally Occurring Reflectors

Though I have access to a wide variety of equipment, increasingly I venture out with nothing more than a single camera and lens. The days of carrying everything I own in a single camera bag are long behind me. Carrying too much weight leaves me prematurely exhausted and redirects my attention to my physical discomfort rather than the unpredictable and great moments that are happening in front of me.

So, when I'm walking on the streets, I'm not just aware of the life happening around me. I'm also paying attention to the way the light is reacting with various surfaces. One of the most important things I pay attention to is how sunlight is reflected off a white wall, the windows of a skyscraper, or even the sidewalk itself. Such surfaces become large reflectors that can transform hard, direct sunlight into a soft, diffused light source ideal for a wide variety of imagery.

The area opposite that surface, which is receiving that soft, diffused light, becomes the perfect location for making a photograph. It becomes the equivalent of a very large light modifier like an umbrella or softbox.

When I made this photograph of my wife, I knew that the direct sunlight in front of the house was too hard and harsh. So, I positioned her against the wall just at the edge, where the direct light ended and the open shade began. There, I was getting the benefit of the light reflected on the light gray porch and walkway. These reflective areas created a large, soft light source, which illuminated both the bright and dark areas. The quality of light became the ideal source of illumination for this portrait.

A common mistake I see my students make is photographing subjects where they find them. Most times, the place where I find my subject is not the same location where I need to photograph her. The lighting is likely terrible and, often, I need to move my subject to a better location. By paying attention to where natural reflection is occurring, I often can discover great locations to make photographs.

Olympus E-3 | ISO 200 | f/2.8 @ 1/250th

Using the naturally occurring reflective surface of my porch and walkway, I was able to produce a pleasing portrait of my wife, which she was more than pleased with.


BARTLETT
05232003

Canon 20D | ISO 100 | f/4 @ 1/100th

The vibrancy of the colors of this young woman's shirt and the wall that serves as the background is made stronger because of the strong reflected light that I used to make this image.

When I walk the streets and see someone I'm interested in photographing, I immediately make an assessment of the area around me to judge the quality of light. If it's a bright, sunny day, I scan for areas that may produce reflected light. So, even before I've approached them, I'm planning my next step to ensure I get a good photograph.

> **TIP:** Don't be afraid to ask your subject to move into a place with better light. I've found that if people are agreeable to being photographed, they gladly move into an area that will result in a more pleasing and flattering photograph.

When I saw this young woman on a ladder placing letters on a marquee, I knew I wanted to photograph her. I particularly loved her orange T-shirt and thought that the juxtaposition against a nearby blue wall would be ideal. If I had photographed her where she descended the ladder, the light would've been too hard. So, after asking her to pose for me, I moved her into an area where the light reflected off the street and buildings behind me, providing me a bright and even light source.

When doing street photography or scouting a location for a job, I'm always evaluating areas of reflected light, jotting down notes to return to specific locations during different times of the day when the sunlight may reflect off those surfaces. These areas can produce the ideal location for a found or set-up photograph.

On days when I'm just walking around, hunting for things to photograph, I allow myself to be drawn to areas where reflected light is illuminating. Even if there isn't anything immediately obvious for me to photograph, I linger there, waiting for something to happen that will allow me to take advantage of the wonderful quality of light. Though I may run the risk of missing something interesting that is happening elsewhere, I would rather hedge my bets by taking advantage of a great quality of light and practice a little patience.

I spotted the light coming into the stable while photographing at a local racetrack. Though I didn't immediately see something to photograph, I made a mental note to keep an eye on this area for a photographic opportunity. The opportunity presented itself at the end of the shoot when the jockey was putting away some of his equipment. The light that was being reflected off the surface of a white structure opposite the passageway became a great source of light for this moment.

My awareness of the light not only helped me to be aware of a good photo opportunity, but also allowed me to determine the best position for taking advantage of the light.

It's just this kind of light that I'm carefully observing anytime I go out to photograph. I don't just scout for interesting subject matter—I'm constantly monitoring the light itself. When I make the hunt for naturally occurring reflective light the priority, I'm more often than not led to subjects that I might not have considered for a photograph.

Olympus E-3 | ISO 800 | f/3.8 @ 1/80th

I spotted this area of reflective light long before the jockey stepped into this spot. By making a mental note of the location, I was ready to make the photograph when the opportunity presented itself.

Reflectors and Scrims

There are moments that call for the use of photo reflectors and other light modifiers to control the light. You may find a good quality of light to work with, as well as a great background, but sometimes those things just aren't enough. The contrast may be too high or you might be losing some detail to shadow. In those situations, I use a light modifier.

A basic photographic reflector typically consists of a ring with reflective material on both sides. The sides can be a white, gold, silver, soft gold, or black. Some reflectors also have a base ring made with a translucent material, which allows light to pass through, softening the light; these devices are referred to as scrims. Available in a variety of sizes and configurations, reflectors can become indispensable tools.

I have several reflectors of various sizes. I keep a small one in my bag, and I often use it for close-up photography. I also have a much larger, 42-inch reflector, which provides a much greater surface area, making it ideal for portraits.

I use the Photoflex brand of reflector—specifically, the MultiDisc 5n1 series—but reflectors from other manufacturers achieve very similar results. The nice thing about the MultiDisc 5n1 is that it includes a scrim and four different reflective surfaces (white, silver, gold, and soft gold) in a reversible zippered sleeve. The disc has a flexible and collapsible frame, which makes it easy to store and transport. Some manufacturers offer reflectors with hand grips, for greater control.

The reflector and shadows

I primarily use reflectors to control the appearance of shadows—how much shadow exists in my photograph. I'm not trying to completely eliminate shadows—that would likely result in a flat, uninteresting picture. I want shadows

present to provide a sense of shape and depth. But if the shadows are obscuring some important detail in my subject or scene, I can use the reflector to retain that detail.

When I'm using directional light, such as from a large window, a reflector becomes an essential tool. Though the light is soft and provides a great source of illumination, the opposing side of the subject is likely to fall into shadow. Those shadows might obscure important details of the face, such as the eyes, or may render dark hair into an opaque black.

So, I position the reflector just outside the frame and angle it to catch some of the light and direct it back toward the subject. Using either a white or silver reflector, I can produce a fill light, which compresses the contrast and reveals some shadow detail.

This portrait of writer and performer Colleen Nakamoto was made in a dance studio with large windows to her left. I placed the reflector to her right, which helped open up the shadows on her face and retain detail in her dark hair.

Reflectors such as the Photoflex MultiDisc 5n1 are versatile tools for using reflective light to control and manage existing light.
Image courtesy of Photoflex

Without the reflector, areas of her face and hair would have been considerably darker, which would have required work in Photoshop in order to reveal the detail. However, the careful placement of the reflector took less time and effort than would've been involved in editing the image on the computer.

I don't just place the reflector blindly. I carefully examine my subject, particularly the areas of shadow. My awareness of the shadows allows me to effectively place the reflector using a technique called *feathering*. Feathering involves varying the angle of the reflector so that I'm not blasting the subject with the full intensity of light. That's important, especially when using the silver or gold side of a reflector. Feathering produces a more subtle effect; it also prevents the subject from squinting because of the reflected light.

> **TIP:** To find that sweet spot of light, angle the reflector back and forth. By observing the shadow side of the subject's face, you'll see the area go from brightly illuminated to not illuminated at all. Go back and forth between these two extremes until you find an angle somewhere in between that provides just the amount of fill light that you're looking for.

I especially like placing my subjects into open shade and using the reflector to throw some reflected light directly at my subject. Though open shade provides a great source of soft, even illumination, it reduces contrast and color saturation, which doesn't work well for many portraits. So, I use a reflector to throw some light directly at my subject to enhance the image.

Nikon D100 | ISO 320 | f/4 @ 1/60th

I placed the reflector opposite the large windows of this dance studio, which provided me a source of fill light, opening up the shadows of my subject's face and hair.

It was just this technique that I used when I made this image of photographer Jennifer Wu. She was sitting on a bench in open shade, and I had another photographer hold the reflector to throw some soft fill light directly onto her face. You can see the gradation to soft shadow as you move your eyes to the left of the frame. The resulting difference is subtle but results in a dramatic improvement to the portrait.

This technique helps warm up the light as well. Because the reflected light is coming from direct sunlight, it will have a different color temperature than the area that's in shade. The result can be a nice color contrast between the warm subject and the cool background.

I stay aware of the shadows beyond the subject itself, because those shadows are still important to many photographs. The presence of shadows often adds a weight and presence to the overall composition. So, although I may use the reflector to reveal details in the shadow areas of my subject, I'm also hoping to retain shadows elsewhere in the frame to maintain the overall feel of the shot.

I placed author Reyna Grande in an area of shade and dappled light. I positioned the reflector to catch some of the sunlight and direct some of it at her face, which not only brightened up her features but also boosted the color saturation on her skin. I didn't want to lose the shadow behind her, because it helped create a sense of separation between her and the background.

Olympus E-3 | ISO 100 | f/5 @ 1/125th

By placing my subject in an area of open shade and then using the reflector to redirect light to her face, I was able to take advantage of the even illumination provided by shade as well as the brighter, warmer illumination of the sunlight.

Because I used the reflector, I built in to this image some of those elements of the five visual draws mentioned earlier in this book—specifically, brightness, saturation, and contrast. The prominence of those three elements would've been reduced under flatter lighting. Because I controlled the light with a reflector, any work that I do in Photoshop builds on the strength of the image rather than trying to remedy its weaknesses.

I see the reflector as a means of *enhancing* the quality of my light rather than a tool for fixing problematic light. I work hard to find the best quality of light possible and use the reflector to improve the look of my subject or scene.

Canon 20D | ISO 200 | f/4 @ 1/125th

The careful positioning of the reflector allowed me to increase the brightness on my subject, while still retaining the shadows in the background, helping to add contrast and weight to the image.

LIGHT STAND AND CONTROL ARM

Because I often work by myself, I depend on a light stand and a control arm to fix the position of my reflector. This provides me the ability to position the reflector in the ideal location relative to my subject, while allowing me to focus on making my photographs. I keep them in the trunk of my car, so I can use them if I need them. I also bring with me a small sandbag in order to keep the entire setup in place should a sudden gust of wind arise. You can buy sandbags with handles for ease of carrying at major photo-supply stores.

A light stand and a control arm provide me the ability to control the position and angle of the reflector when I'm working without the benefit of an assistant.
Image courtesy of Photoflex

Nikon D100 | ISO 200 | f/8 @ 1/200th

By using the scrim, I was able to diffuse the light immediately around my subject while maintaining the strong, hard light in his surroundings.

The scrim and hard light

When I have a subject in direct sunlight, but I don't have the ability to move that subject into an area of open shade, I use the scrim to soften the light. By positioning the scrim between the sun and my subject, I can take advantage of the strong light source and still maintain a good degree of color saturation and contrast.

I knew I wanted to photograph writer Robert Roberge against the side of his garage. The direct sunlight was producing some interesting shadows as well as making the existing colors very saturated. But even though the light was ideal for the rest of the scene, it wasn't going to be a good quality of light for him. The answer was positioning the scrim between my subject and the sunlight.

The placement of the Photoflex LiteDisc between the sun and my subject allowed me to diffuse the light for him, while maintaining the quality of illumination for his surroundings. There were other areas in the rear of his house that were in open shade, but I love the elements of the bike and the shingles. I thought the color of the wall and the bike offered a nice complement to his outfit and skin tone. The light was great for most of the scene, but it wasn't until I carefully positioned the scrim that I was able to get a good quality of light on him, while not losing the quality of the light that rendered the rest of the scene in the way that I wanted.

For images that will include a full body or group shots, you'll need a large scrim. They're available in sizes of 72 inches or even larger. For fashion work, such a light modifier becomes an essential and important tool.

Photoflex's LiteDiscs serve as scrims that can be positioned between the light source and the subject and soften the harshness of direct sunlight.
Image courtesy of Photoflex


viscount

Using Flash

Flash can be a great tool for controlling contrast and revealing detail in the shadows. However, the light produced by direct flash is something that I dislike very much and work to avoid. When I do use flash, I often have a light modifier on the flash head. The one I prefer is the Gary Fong LightSphere (www.garyfongestore.com), which provides a beautiful quality of light whether I'm using it as a primary light source or as a fill.

For much of my work, I use flash to serve as a fill light rather than the primary light source. To achieve this effect, I often use the camera's or flash's own flash compensation control. This control allows me to increase or decrease the output of the flash in increments of one-third stop.

Today's digital cameras feature TTL (through-the-lens) metering, which provides for accurate exposure. So, my main concern is less about whether I get a good flash exposure and more about whether the look of the resulting flash illumination achieves my goals for the image.

This image from a wedding illustrates how I use flash to illuminate my subjects. The flash brightens and helps make the subjects the anchor of the image. However, I'm also allowing the ambient light in the room to play a big part in the photograph. I dislike images in which the backgrounds go black, so I use a slower shutter speed to allow the camera to register more of the ambient light.

When I'm using the flash in conjunction with the ambient light, I meter the ambient light and set my exposure manually, making sure that my shutter speed doesn't exceed the maximum allowable flash sync speed, which is the maximum speed that can be used with flash and maintain an even exposure over the entire frame. (You can find information on your camera's maximum flash sync speed in your manual.) Since I'm often using the flash under low light, my shutter speeds tend to be on the lower end, typically somewhere between 1/15 to 1/30 second. This results in the flash illuminating and freezing the subject, while the ambient light illuminates the background. If I'm in a room using artificial light, such as a tungsten light source, the background has a warm glow because of the warmer color temperature of the bulbs. This provides a nice look to the images.

Olympus E-5 | ISO 800 | f/4.5 @ 1/20th

By metering manually for the ambient light, I was able to use the flash to serve as the main source of illumination for my subject and still get a good exposure for my background.

On the other hand, fluorescent light produces a greenish color cast, which doesn't look particularly good to me. In these conditions, I tape an FLD filter to my flash. This filter tries to match closely the color temperature of the fluorescent lights. By setting the white balance to the fluorescent preset, I can get a uniform color temperature. This can be tricky because there is a great variability with fluorescent lights, which may result in some needed correction later in Photoshop.

My work out on the street provides me the best opportunities for using flash. In these situations, I use flash to strike a balance between a dramatic sky and my main subject, who would otherwise be lost to shadow.

I was in St. Augustine, Florida, helping to conduct a workshop when I asked this man if he would pose for me. This allowed me to demonstrate to my students the technique I use indoors, out in the field. By simply taking a meter reading of the sky, I set my shutter speed and aperture. Then I turned on my flash, which, by using a TTL dedicated cable, I had positioned off camera, to my left. This resulted in the sky being well exposed, while the flash lit the subject.

I take the flash off camera because it provides some edge shadow on the subject, which maintains a sense of depth and shape. Had the flash been on camera, the resulting light would've been flat. It still would've been well exposed, but the look of the final shot wouldn't have been what I had envisioned in my mind's eye. By placing the flash off camera and having the subject looking at the flash head, I was able to create a strong composition.

Canon 5D Mark II | ISO 100 | f/11 @ 1/200th

By metering for this morning sky, I established a base exposure for the background and used the off-camera TTL flash to provide the illumination of a man and his dog.

Some cameras and flashes provide a feature called high-speed sync, which allows the camera to use TTL flash at shutter speeds beyond the maximum flash sync speed of a camera, which is typically around 1/200 or 1/250 second. It achieves this result by producing repeated pulses of the flash as the shutter curtain travels across the surface of the sensor or film plane. This strobing is invisible to the human eye, but it's very effective for using flash at shutter speeds of 1/500th and higher.

I used this feature while photographing this off-road motorcyclist. It was a bright sunny day, and I wanted to create a dramatic portrait of him. I wanted to get a saturated blue sky, as well as include the shadows that were present on the man and his bike. So, after setting my camera for the high-speed sync, I narrowed the zoom head to illuminate just his head and torso.

The shadows help create the impact of this photograph. If I had allowed the flash to fully illuminate the man and the motorcycle, the resulting photograph would've felt much different and wouldn't have been what I had envisioned.

So, for me, flash becomes more than just a source of light when I'm lacking it. It's a creative tool.

I see a lot of discussion revolving around the correct use of reflectors or flash, without a discussion of what the photographer wants from the light itself. Often, the discussion revolves around fixing problem lighting, which I believe is a recipe for a lackluster photograph. Instead, I push myself to discover the best light possible and use these tools to build on the strength of the light. That provides me a much better starting point from which I can make an image I can be proud of.

If you want to learn more about how to make greater use of flash, you'll find a wealth of information in *The Hot Shoe Diaries: Big Light from Small Flashes*, by Joe McNally, and *Speedliter's Handbook: Learning to Craft Light with Canon Speedlites*, by Syl Arena (both published by Peachpit). Also, I strongly recommend you visit strobist.blogspot.com, a Web site created by photographer David Hobby; the site offers a wealth of free information on how to get the most out of your flash.

Canon 40D | ISO 200 | f/11 @ 1/1,000th

The camera's high-speed sync features allowed me to use a shutter speed higher than the camera's normal flash sync speed to achieve this dramatic result.


ROCKIES

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The Transformative Power of Light

Awareness of light changed the way I photographed for the better. Though I had exposed hundreds of thousands of frames with both film and digital cameras, it wasn't until I began to see and use the light that I was able to make the kinds of images that I had preconceived in my mind.

This awakening changed the way I photographed. But, more important, it changed the way I see, with and without a camera. The remarkable and awesome beauty revealed to me as a result of tuning into what's happening with the light has been an amazing gift.

Canon 20D | ISO 800 | f/5 @ 1/30th

Recognizing that my own unique way of seeing provided me an opportunity to make images that others might not likely make was an important part of my photographic journey.

The choice to be a photographer—whether as a professional or as a dedicated hobbyist—is rife with many pitfalls, including moments of frustration, disappointment, and self-doubt. I suspect that this is the case with any creative art, but with photography those moments are easily repeatable within fractions of a second.

Still, the choice to chase the light has provided me some unexpected but satisfying benefits.

The Curse of Comparison

Much of my photographic career revolved around comparison. I would look at the work of others and assign myself a spot in the pecking order. I'd look at the work of my peers or the masters, and I'd either see something to strive for or fall into a pit of insecurity. I'd look at the work of others and declare my superiority as proof on my inherent talent. And eventually, I discovered that this was a losing game that I didn't want to play.

My fixation on comparing my work to others was all about the outcome of my images. The success of an image was based less on what I thought I had achieved with it, and more on how the image was received by other people. The worth of each image was often based on other people's opinion, rather than on my own.

The polarity of that way of thinking often resulted in my making photographs that people would never see. Fear that my images would be rejected or criticized convinced me to make choices that drew me away from practicing my passion for making images.

It manifested itself in my not sharing my images with my peers, as well as in my reluctance to pursue professional ambitions. I delayed submitting materials for contests or publications, justifying myself by saying that the images weren't *perfect* enough or by believing that I still wasn't ready.

The impact on my practice of photography was just as harmful. I found myself making safe choices, repeating the same images over and over again. Taking a risk invited the opportunity for failure, which I was completely averse to. The fact that I wasn't progressing either creatively or professionally was lost on me.

Comparison was an opportunity to learn from others' work, but I had turned it into a debilitating way of thinking, which I thought would be remedied solely by the purchase of a new piece of equipment or software. The next purchase would help take me to the next level. And although it did provide new moments of creativity, those moments were short-lived.

The Answer Is in the Light

I likely would've spent a lifetime in that cycle had I not realized the importance of light and its role in conveying my unique way of seeing the world. It's not enough to say that my conscious awareness of the light changed the way I use the camera. It also led me to recognize the uniqueness of how I can see and reveal the world.

When I allowed myself to be led by the light, I began to make images I would have never have considered before. I not only photographed subjects differently, but I made images of people and scenes that, in the past, I would've totally ignored. As I made images of people, places, and things that everyone else was oblivious to, I began to understand and appreciate how I was seeing the world and, in turn, using the camera to convey that.

Like a switch that can't be turned off, I began to observe light everywhere around me at all times of the day, whether I had the camera or not. And this provided me amazing, gratifying moments of discovery and excitement. Sometimes, I would nudge the person beside me and point it out; other times,

Canon 1D Mark II | ISO 200 | f/5 @ 1/250th

By using my understanding of light, I was able to make images of the people I encountered who intrigued me with their beauty, uniqueness, and character.

I would silently take in the pleasure of the moment. The act of seeing became a fun and joyous game, regardless of whether I used a camera to capture that moment in time and light.

This change in my perception transformed and forever changed not only how I see the world, but also how I see my own work.

I began focusing more on that wondrous feeling of discovery I would experience when I discovered something with my naked eye. The dramatic and subtle way the light would reveal a beautiful woman walking down the street, or the tiles of a public fountain, or even an old manhole cover made the act of seeing feel adventurous.

Suddenly, the act of photographing these moments created a new challenge for me. Could I make photographs that captured what I *felt* when I discovered those things? Could I use my equipment and my existing skills as a photographer to capture, in a single frame, the excitement and wonder I felt inside?

It was then that photography became less about my ranking in comparison with others, and more about my ability to effectively express what I felt in my photograph. So, the challenge was no longer dependent on someone else placing his or her stamp of approval on the image; instead, all that mattered was whether I felt the image succeeded in conveying the message I had hoped to convey.

Other people's reactions might confirm whether I had achieved that goal, but their opinions were less about my worth as a photographer. Instead, they became a way of measuring what I was doing well and what I needed to work on.

Get the Gear out of the Way

This new sensibility made me less dependent on owning and using the latest equipment and software. Instead, I focused on the equipment that I already had and tried to master it. I didn't need to understand every bell and whistle. I just had to come to grips with those controls and features that were most important in my effort to capture images that expressed how I felt.

As I focused my attention on those camera controls that impacted color, sharpness, contrast, exposure, and focus, I found myself less preoccupied with what my camera had or didn't have. I wasn't attributing the quality of my images to the grade of lens I was using or the year of production of the camera body. There would always be something new and improved around the corner, but on the day that I was out making images, this camera and lens were what I had to work with and the challenge was how to make them do what I needed them to do.

My career as a writer and photographer provided me the opportunity to use a wide variety of equipment, as you can see in all the images presented in this book. In addition to providing me the opportunity to play with the latest toys, it gave me a great understanding of my own abilities and limitations as a photographer. Because regardless of whether I was handling a $5,000 camera or a $200 one, I was the common denominator. It was up to me to make that camera do something exceptional.

Though I still appreciate the advances that each camera and lens manufacturer makes to its products, and I still take advantage of them, I'm less a slave to them than I once was. Instead, I've learned to use those features and controls that mean the most to my own photography, instead of simply accepting someone else's opinion as to what I needed.

The Joy of Seeing

I've always been addicted to the act of raising the camera to my eye, depressing the shutter release button and making an image. But it's only been through my awareness and use of light that I've been able to fully enjoy the process of seeing, making the photograph, and producing that final print.

Though the opinions of others are still important, they don't hold as much sway over me as they once did—though, admittedly, I still have my moments. Now, I'm more often urged on by my own pressing desire to make a photograph that, when I hold the printed version in my hands, says something unique about how I saw the world.

Olympus E-30 | ISO 400 | f/8 @ 1/60th

The beauty of seeing and mastery of my camera provide the ability to create images that, whether straight out of the camera or enhanced in Photoshop, allow me to say something about what I see.

It's not an easy thing to do, and that's evident in the hundreds of thousands of exposed frames that exist in file drawers and on computer hard drives. However, the success or failure of any of those individual images isn't what matters—it's the process itself. Though the majority of images that I make fall short, they all help inform those moments when I do succeed. The choices of exposure, composition, focal length, and more are part of that process of working with the limitations of our medium to achieve something expressive and beautiful. If it were easy, everyone could and would be doing it.

So, today when I return from a day of shooting, I may be looking at hundreds or even thousands of images of which only a few are satisfactory—and that's okay. This isn't a game of percentages. I don't gauge my success as a photographer on the percentage of great frames from a shoot or a vacation.

There are days when I come home and have three images that I'm hugely excited about, and there are other days when I come home with nothing. And though those lackluster days may leave me feeling frustrated or disheartened, it doesn't diminish the satisfaction I felt at being out there with my camera doing what I love.

The true value of photography becomes the appreciation and satisfaction of being in the moment. It's about the synchronicity of my eye, the camera, and the moment that allows me to be more present than other times in my life. Being in what others have called "the zone" offers me a wonderful opportunity to appreciate and be grateful for the life that I have.

Your Journey Begins Now

If this book has achieved anything, I hope it's much more than just telling you how to better use your camera. I hope that this book ignites that spark inside of you to discover the light and the beauty in your own world, and that the images you make become a testament to your own unique vision.

If no one person is alike, then no single vision is alike. It's my hope that those words will help you to discover your own sight and that the images you create from it inspire others to see the world a bit differently.

Resources

Podcasts

Podcasts are streaming or downloadable audio or video content that can be played on your computer, television, or mobile phone. Services such as iTunes and Mediafly allow you to subscribe to podcasts for free. The following podcasts offer great sources of content on the subject of photography:

The Candid Frame: A Photography Podcast (www.thecandidframe.com): This is my own biweekly show, featuring conversation with some of the world's best established and emerging photographers from the fields of fashion, photojournalism, sports, wedding, and more. The show focuses on the creative and business side of the photographic life.

Digital Photography Tips from the Top Floor (www.tipsfromthetopfloor.com): Hosted by photographer Chris Marquardt, this podcast provides tips and tricks in a fun and informative way. It offers both audio and video content on composition, post processing, and more.

Martin Bailey Photography Podcast (www.martinbaileyphotography.com): Focusing on nature and wildlife photography, Martin Bailey provides a wealth of information on photographic technique from capture to final output. Based in Japan, the English-born photographer provides content in audio and video; he also supports a popular photographic forum and community.

Jeff Curto's History of Photography Podcast (http://photohistory.jeffcurto.com): This podcast is recorded during Jeff Curto's lectures from his History of Photography course at the College of DuPage. It offers a wealth of information on the history of photography and provides great insight into the evolution of the photographic art. It's intended as a review for students in the class, but it enjoys an international audience.

This Week in Photo (www.thisweekinphoto.com): A weekly program hosted by Frederick Van Johnson, This Week in Photo features a discussion forum where the latest news and controversies in photography are discussed and debated. It also features great interviews with important people in today's photographic world.

Blogs

Blogs are a type of Web site where people post regular writings, photographs, commentaries, videos, or Web links. The following photo-related blogs are a few that I regularly visit for the quality of their content:

Digital Photography Review (www.dpreview.com): This site provides exhaustive reviews of cameras, lenses, and other photographic accessories. Its detailed reviews and active message boards are a great source of information on all things photographic.

Imaging Resource (www.imaging-resource.com): Imaging Resource provides comprehensive and informative digital camera reviews. It's an excellent resource for finding information on the latest equipment, even before they become available for purchase at your local camera store.

A Photo Editor (www.aphotoeditor.com): Written by Rob Haggart, the former director of photography for *Men's Journal* and *Outside*, this blog is an informative resource for the trends, issues, and controversies in the professional photographic industry. It's an important resource for both emerging and established photographers.

Smogranch (www.smogranch.com): Photographer Dan Milnor is an Orange County photographer who is a big proponent of analog photography, but he also provides some great insight into choosing a creative life. He's one of the best writers on the topic of photography.

Strobist (www.strobist.blogspot.com): Started by photographer David Hobby, Strobist has promoted the creative use of flash for innovative lighting effects. Popular among both professionals and enthusiasts, the site provides a lot of information on learning and using light.

En Foco (http://blog.enfoco.org): The En Foco blog provides a fantastic resource for discovering the diverse community of photographers from around the world. En Foco is a nonprofit organization that supports the work of photographers of African, Asian, Latino, Native American, and Pacific Islands heritage.

Online Learning

BetterPhoto.com (www.betterphoto.com): BetterPhoto.com provides an online learning experience where students learn from the experience and knowledge of professional photographers, including William Neill, Rob Sheppard, Tony Sweet, Vik Orenstein, Lewis Kemper, and myself. It offers a supportive community, as well as popular four-week and eight-week courses on a wide variety of photographic subjects.

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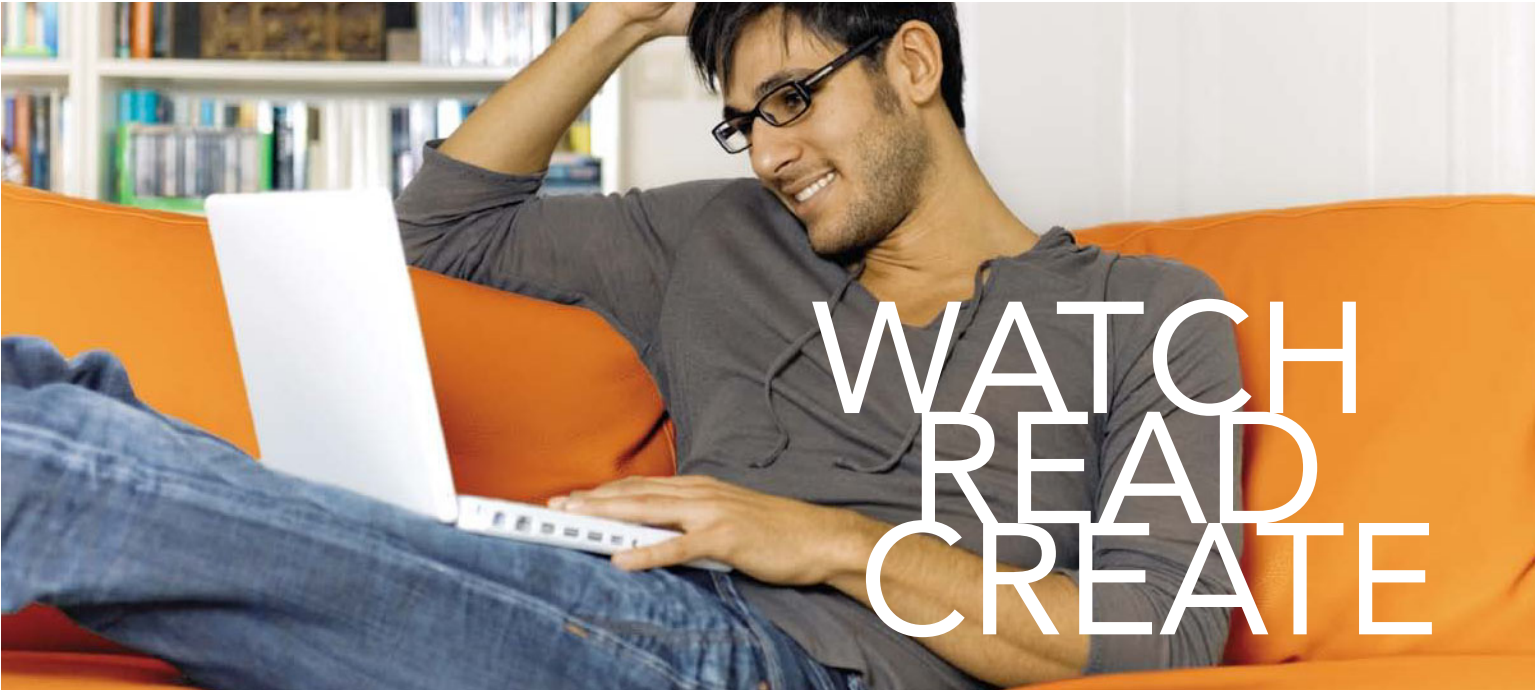

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